NORTH RIVER WBID 0083

Recreational Use Attainability Analysis

May 2007

PREPARED FOR:

RFP No: B3Z07134

Water Quality Monitoring & Assessment Section Water Protection Program

Division of Environmental Quality

MISSOURI DEPARTMENT OF NATURAL RESOURCES

P O Box 176 Jefferson City, MO 65102

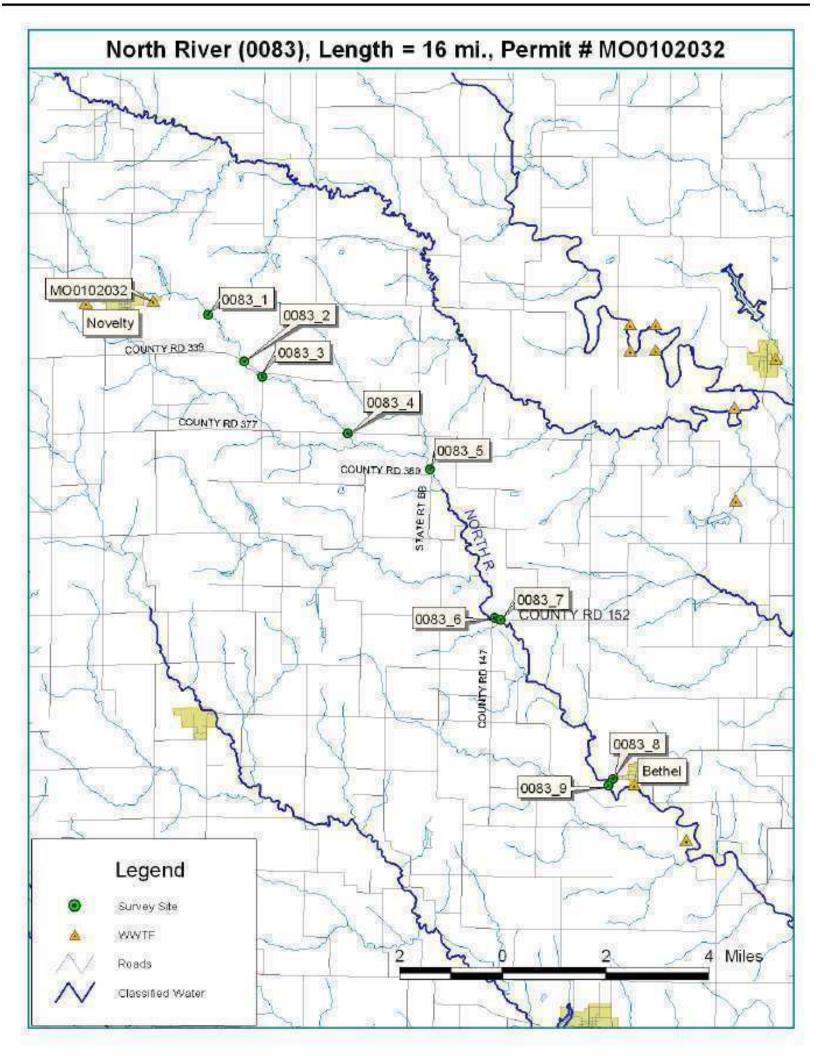
PREPARED BY:

MEC WATER RESOURCES, INC.

1123 Wilkes Blvd., Ste. 400 Columbia, MO 65201

Data Sheet A - Water Body Identification

I. V	Vater Body Information (For water body being su	urveyed)
	Water Body Name (from USGS 7.5' quad):	North Biver
I	Missouri Water Body Identification (WBID) Nur	
8	8-digit HUC: 07//0004	County: Krox/shellx
Ţ	Upstream Legal Description (from Table H):	28,60N, 11W
I	Downstream Legal Description(from Table H):	HWY 15
1	Number of sites evaluated \mathfrak{P}	
I 3	List all sites numbers, listed ensequantly upstream	m to downstream: - HWY 15 2- LOUNTY RD 375
1	1-250 M DOWNSTREAM LRD 142 8-50 M WEST 1	ST STREET 9-300 m NOWN STREAM EIRET STREET
11. 3	Subsegmentation (fill this section out only in canocation coordinates (universal transverse mercator products)	ases where subsegmentation is being proposed)
τ	Upstream Coordinates: UTM X Y	Downstream Coordinates: UTM X Y
10	HORIZONTAL COLLECTION METHOD (Indicate the method used to deter Global Positioning System (GPS)	
c	Static Mode	Interpolation
	Dynamic Mode (Kinematic)	Topographic Map or DRG
-08	Precise Positioning Service	Aerial Photograph or DOQQ Satellite Imagery
	Signal Averaging	Interpolation Other
	Real Time Differential Processing	morpolation other
10000	IORIZONTAL ACCURACY ESTIMATE	
	GPS Data Quality	Interpolation Data Quality
F	**************************************	Source Map Scale: 1:24,000 1:100,000 Other
E	EPE	ers ————————————————————————————————————
	PDOP	±Feet or ±Meters
	Discharger Facility Information (list all permitte	ed dischargers on the stream)
	Discharger Facility Name(s): Novo(+Y	warf
	Discharger Permit Number(s):	102032
	UAA Surveyor (please print legibly)	
1	Name of Surveyor RENEE MARTIN	Telephone Number: 573 443 4100
(Organization/Employer: MEC WATER	RESOURCES
F	Position: ENV. SPECIALIST	
		checked all applicable boxes and that everything is
Sign	plete. ed: Mule Mark	Date: 5/18/07
	ed: filmee Mart	Date: 5/18/07
		1 1 2 1 - 0 1



WBID#_	00	83
Site#	1	

Date & Time:	5/14/	07 0915		Si	te Location Descr	ription (e.g., road crossing):	-			
Personnel (Data		R. MARTINI		H	wy 151 -	BRIDGE CROSSING	ş-			
Current Weathe				Fa	cility Name: N	9TWW PTJOVO				
Carrent Weather		CLEAR		Pe	ermit Number: p	40 0103032				
Weather Condit	ions for Past	10 days: UNK	NOWN							
Drought Condit	ions?: No dr	ought 🗆; Phase I 🗆	; Phase II	□; Phas	se III □; Phase I	V □; Unknown				
e Locations	•									
		NIVERSAL TRANSVERS	E MERCATO	OR PROJE	CTION, IN METER	S)	e mentende en			
Site GPS Coor	rdinates: U7	ГМ X: 057020	15		Y: 44	29020				
HORIZONTAL CO		ETHOD (Indicate the me		determine	the locational data.	The contract of the contract o				
Static Mode	Global I	Positioning System (G	iPS)	1 1 1 1 1 1 1 1 1 1 1 1 1	Topograp	Interpolation Topographic Map or DRG				
Dynamic Mode	(Kinematic)					otograph or DOQQ		+		
Precise Position		···			Satellite I	······································				
Signal Averagin					Interpolat	tion Other		/ X		
Real Time Differ		ssing		17	X STATES					
HORIZONTAL A			280							
		GPS Data Quality				Interpolation Da	ta Quality			
FOM	±	Meters	,		Source	Map Scale: 1:24,000 1:100,	000 Other			
EPE	±	Feet or ±	Mete	ers		Meters				
PDOP		**Garagement*								
otos:										
Photo ID#		Photo Purpose and D			Photo ID#		se and Direction			
(WBID_Site#_##) 0083_1_1WH		(upstream, downstream, o		<i>.</i>	(WBID_Site#_##)	(upstream, d	ownstream, other)			
	-LIVEST	SAM, SITE # 1 TO	FENCE	fucto {						
0083_1_165	UPSTREA -FENLE	M ISTER MI LIVESTOCK WA	ANSECT:	141						
es Observe	d*: (Uses :	actually observed	d at time	of sur	vev.)					
		☐ Skin diving								
☐ Swimming			1 —	SCUBA	diving	☐ Tubing	☐ Water sk	iing		
☐ Swimming ☐ Wind surfin				SCUBA Boating	diving	☐ Tubing ☐ Wading	☐ Water sk☐ Rafting	iing		
☐ Wind surfin		☐ Kayaking		Boating				iing		
☐ Wind surfin☐ Hunting	g	☐ Kayaking ☐ Trapping		Boating Fishing		☐ Wading None of the above	☐ Rafting ☐ Other:			
☐ Wind surfin☐ Hunting☐ Describe: (Incli	g ude number (☐ Kayaking ☐ Trapping		Boating Fishing		□ Wading	☐ Rafting ☐ Other:			
☐ Wind surfin☐ Hunting☐ Describe: (Incli	g ude number (☐ Kayaking ☐ Trapping of individuals recreati		Boating Fishing		☐ Wading None of the above	☐ Rafting ☐ Other:			
☐ Wind surfin☐ Hunting☐ Describe: (Incli	g ude number (☐ Kayaking ☐ Trapping of individuals recreati		Boating Fishing		☐ Wading None of the above	☐ Rafting ☐ Other:			
☐ Wind surfin ☐ Hunting ☐ Describe: (Include Interview of the Interview o	g ude number o when conduc	☐ Kayaking ☐ Trapping of individuals recreatiting interviews.)	ing, photo-c	Boating Fishing documen	tation of evidence	☐ Wading None of the above of recreational uses, etc. U	☐ Rafting ☐ Other: (se Data Sheet D-			
☐ Wind surfin ☐ Hunting ☐ Describe: (Include Interview of the Interview o	g ude number o when conduc	☐ Kayaking ☐ Trapping of individuals recreatiting interviews.)	ing, photo-c	Boating Fishing documen	tation of evidence	☐ Wading None of the above	☐ Rafting ☐ Other: (se Data Sheet D-			
☐ Wind surfin ☐ Hunting ☐ Describe: (Include Interview of the Interview o	g ude number of when conduction	☐ Kayaking ☐ Trapping of individuals recreatiting interviews.)	ing, photo-co	Boating Fishing documen	tation of evidence	☐ Wading None of the above of recreational uses, etc. U	☐ Rafting ☐ Other: (se Data Sheet D-	Recreation		
☐ Wind surfin☐ Hunting☐ Describe: (Include Interview V	g ude number of when conduction condition parks	☐ Kayaking ☐ Trapping of individuals recreatiting interviews.)	ing, photo-co	Boating Fishing documen	tation of evidence	None of the above of recreational uses, etc. U	☐ Rafting ☐ Other: See Data Sheet Dems of interest.)	Recreation		
☐ Wind surfin ☐ Hunting ☐ Describe: (Inch Use Interview v	g ude number of when conductor Condition parks cesses	☐ Kayaking ☐ Trapping ☐ individuals recreatiting interviews.) IS*: (Mark all that prof ☐ Playgrounds ☐ State parks	mote or impe	Boating Fishing Hocumen Ade recreate conserve	tation of evidence	Wading None of the above of recreational uses, etc. Uponotos of evidence or unusual item. Urban areas	□ Rafting □ Other: See Data Sheet Dems of interest.) □ Campgro	Recreation		
☐ Wind surfin ☐ Hunting ☐ Describe: (Include Interview of the Interview o	g ude number of when conductor Condition parks cesses	☐ Kayaking ☐ Trapping of individuals recreatiting interviews.) IS*: (Mark all that prof	ing, photo-comote or impe	Boating Fishing Hocumen Ade recreate conserve	tation of evidence	Wading None of the above of recreational uses, etc. U shotos of evidence or unusual ite Urban areas Nature trails	Rafting Other: See Data Sheet December of interest.) Campgro	Recreation		

WBID#	00% 7
Site#	

Data Sheet B - Site Characterization

☐ Camping Sites	Rope swings	☐ Foot paths/prints	□ Dock/platform	Livesto	ck Watering	g RV / ATV Tracks		
1 0		☐ Fire pit/ring	☐ NPDES Discha	arge	g Tackle	☐ Othe	er:	
Comments:								
							4.	
eam Morphology								
U pstream View's l	Physical Desc	criptions: Is ther	e any water present	at this view?	□ Yes □] No		
		If so, i	s there an obvious	current?	□ Yes □	l No		
Select one of the for Channel Feature	ollowing char		m Width (m)	Length (m)	Median I	Depth (m)	Max. Depth (m)	
- Allermanian proportion of the first of the	Transcet (#	access (m)			\$1750.00MP8bB945700mp80333		And de Anna and an anna and an	
RIFFLE								
RUN POOL							-	
			-					
					n □ Vec	□ No		
Downstream View	y's Physical I							
			, is there an obviou	is current?	□ Yes	□ No		
Select one of the for Channel Feature	Distance fron		idth (m) Ler	ngth (m)	Median Depth	(m)	Max. Depth (m)	
RIFFLE								
RUN								
POOL								
bstrate*: (These	values should	add up to 100%.)					
% Cobble		6 Gravel 50	% Sand	% Silt	50 % Muc	l/Clay	% Bedroo	
	1*: (Note amo	ount of vegetation	or algal growth at t	the assessment	site.)			
uatic Vegetatior				·, ·, · · · · · · · · · · · · · · · · ·				
		. / /						
Little alga		bshake					:	
	e n Sw							
Little alga	e n Sw	all that apply.)	□ Musky □ Chemi	ical No	one 🗆 Oth	ner:		
Little alga	e n Sw	all that apply.)	□ Musky □ Chemi	ical ∑No				
Lattle alganater Characterist ODOR:	l M Sw tics*: (Mark :	all that apply.) ☐ Sewage ☐ Clear	-	□м	ilky 🗆 Oth	ier:		
Little alganater Characterist ODOR: COLOR:	l M Sw tics*: (Mark :	all that apply.) ☐ Sewage ☐ Clear ☐ Sludge	☐ Green ☐ Gray	□ M ediments □ No	ilky □ Oth	ner:		
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE	tics*: (Mark :	all that apply.) ☐ Sewage ☐ Clear ☐ Sludge ☐ Oil	☐ Green ☐ Gray ☐ Solids ☐ Fine so ☐ Scum ☐ Foam	□ M ediments □ No	ilky □ Oth	ner:		
odor: COLOR: BOTTOM DEPOSIT	tics*: (Mark :	all that apply.) ☐ Sewage ☐ Clear ☐ Sludge ☐ Oil	☐ Green ☐ Gray ☐ Solids ☐ Fine so ☐ Scum ☐ Foam	□ M ediments □ No	ilky □ Oth	ner:		
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE comments: Please a	tics*: (Mark: DEPOSITION: attach any add	all that apply.) Sewage Clear Sludge Oil ditional comments	Green Gray Solids Fine s Scum Foam s to this form.	ediments \(\sum \) No \(\oxedim \) No \(\oxedim \) No ignation but rath	ilky Othone Othone Othone Othone	her: her: her: de a moi	re	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE Comments: Please a	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments of a conditions. Conse	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	her: her: de a moi	ice a	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE Comments: Please a	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments of a conditions. Conse	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	her: her: de a moi	ice a	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE Comments: Please a	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments of a conditions. Conse	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	de a mon y influent nother us	se.	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE Comments: Please a	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments of a conditions. Conse	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	de a mon y influent nother us	se.	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE Comments: Please a	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments ely for removal of a	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	de a mon y influent nother us	se.	
ater Characterist ODOR: COLOR: BOTTOM DEPOSIT WATER SURFACE chis information is not imprehensive understa	tics*: (Mark : DEPOSITION: attach any add t to be used sol	all that apply.) Sewage Clear Oil ditional comments ely for removal of a	Green Gray Solids Fine so Scum Foam s to this form. a recreational use desquently, this informa	ediments 口 No	ilky Othone Othone Othone Othone	de a mon y influent nother us	se.	

				MEC	Recr	eatio	nal Us	se Att	ainab	ility A	nalys	is Fie	ld Su	rvey S	Sheet					
																Disso	Ived O	xygen		
Waterbody ID:	009	<u> 73</u>	_		008		-							Date:	5/18	P/37	*	Time:	091	5
Estimated Cha	annel Inc	cision:	410		_WBID) iaht bet	, ,	w bank	width a	nd wate	er)				Dise	solved C)xvaen:	7,3	39	(ma/L)	
1	PS Location (taken at transect 1):																			
UTM X:	UTM X: 0540294 UTM Y: 4429020														solved C)xvaen:	A Z	,3	(% sat)	
Horizo	Horizontal Accuracy Estimate (GPS Data Quality): +/- / 7 (feet)																	.0		
İ		-		•						•					Specific	Cond:	74	10,8	(µS/cm)
Average Strea	erage Stream Width: 2.5 (meters) Length of Survey Segment:/50 (meters)														•		A-15 - 5465		. **	·
									eam widt					Wate	r Tempe	erature:	15.	5	(°C)	
Field Staff:	_K.	MAGET	TM .	9 J.	TOT	4	`	-												
								Trans	sect Cr	oss-Se	ection									
01	0)2	0	13	0	14	0	5	C)6	0)7	0)8	O	9	1	0	1	1
Distance (m) Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
0.0 0.0	0.0	oil	0.3	0.1	0,4	0.1	0.0	0.0	0.3	0,1	015	011	0.0	0.0	0.4	0,1	0.2	011	0.7	0.1
	017		0,4			0,2			016	er. 1	0,8	011	0,12	2011	0.8	0,2	0.3	011	0.6	0,2
. 0114	0/17			VI.		2		1	. 0	1 7 7 0	,)	. ,	,	8	10		,1		Ole.	

		<i>,</i> ,		12		3	ı u	4	ı •	5		0	U	11	0	0	, ·	10		•		' 1
Ma	Distance (m)		Distance (m)		Distance (m)		Distance (m)		Distance (m)	5 ()	Distance (m)		Distance (m)	5. 11 ()	Distance (m)	D#- ()	Distance (m)	D / \	Distance (m)	D 15 ()	Distance (m)	Donath (m)
Measurement	(111)	Depth (m)	(111)	Depth (m)	(11)	Depth (m)	(111)	Depth (m)	(117	Depth (m)	(11)	Depth (m)	(11)	Depth (m)	(117)	Depth (m)	(1117	Depth (m)	(111)	Depth (m)	(11)	Depth (m)
1	010	6.0	0.0	oil	0.3	0.1	0.4	0.1	0,0	0.0	0,3	0.1	015	011	0.0	0.0	0.4	0,1	0.2	011	0.2	0.1
. 2	0.16	20.1	0117	0,2	0,4	Oil	0,5	012	0.19	<i>L0</i> .(016	oil	0,8	011	0,12	20,1	0,8	0,2	0.3	011	0.6	0,2
3	0.32	2011	0.34	0.3	0.5	0,2	0.6	0,2	0.38		0.9	0:2	1.	Oil	0.24	**O	1.2	012	0.4	012	01.0	0.2
. 4	0.48	20,1	0.51	0.3	0.6	0.2	0,7	0,2	tc.0		1.2	012	1.4	012	0.36		1.6	0,3	0.5	012	1.4	0.3
5	1060	20.1	0.68	0.3	0.7	0.2	0,8	011	0.76		1.5	012	1.7	0.2	0.48		2.0	013	0.6	0,2	1,8	0,4
6	8.0	60.1	0.85	0.3	0,8	0.2	0,9	0.1	0.95	-1	1.8	0,25	2.0	Oil	0.40		2.4	0/3	0.7	0,2	2.2	0,5
7	0.94	20,1	1.02	0.4	0.9	0.2	1.0	0.1	1.14		2.1	0,3	2.3	011	0.72		2.8	0.3	0.8	0.1	2.6	0,5
8	74	<011	7	0.3	1.0	0.1	-	0.1	1.33		2.4	013	2.6	0:1	6.84		3.2	6/B	0.9	0,1	3,0	0,4
9	1.28	20.1	1.36	0.2	1.1	0:1	1.2	0.1	1.52		2.7	0.3	2.9	0.1	0.96		3.6	012	1.0	011	3,4	D. 3
10	1	201	133 153	0,2	1,2	0.1	1,3	011	1.71	\downarrow	3.0	0.2	3.2	011	1.08	\downarrow	4.0	0.2	1.	0,1	3,8	0,2
11	1.0	20.1	1.7	Oil	1.3	oil	T	0.1	1.9	2011	3) 3)	011	3.5	01	1.2	40,1	4.4	0.1	1.2	011	4,2	0,1
12	1,6	0.0	1,7	0:0	1,5	0.0	1.8	0.0	119	0,0	4,0	0.0	3,8	010	1,2	010	7	0:1	119	0,0	4.3	0,0
Feature Type (riffle, run, or pool)	RIF	né	Run	J	Ru	N	Ru	N	R	IFFLE	Foe	· Lu	R	υN	RIEF	LE	Poo) (Ri	N	Pos	っし

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: Date: 5/18/07

On 16 5 - 23 - 67

Med Sport

WBID#	0083
Site#	2_

Data Sheet B - Site Characterization

Date & Time:	1/18/07	1000					ription (e.g., road crossing):	and the second			
		: P.MARTIN +	J FOTH	CC	PTUNC	ROA	n 375 Beidag ca	0 % 3 I N87			
Current Weather							MO 0102032	>			
Weather Conditi	ons for Pas	t 10 days: UNKN	0WN	1 61	mit Numb	CI.	JIU <u>L D </u>				
Drought Conditi	ons?: No d	rought []. Phoce I [Dhace II	l. Phase	- III □ · P	hace I	V□; Unknown 🗹				
Drought Condill	ons: No a	rought :; Phase I	i; rhase ii 🗀	i, Fliasc	с III Ш, Г	nasc 1	V L., UIKIOWII B				
te Locations:		NIVERSAL TRANSVERS	E MERCATOR	PROJE	CTION, IN M	IETER:	3)				
		TM X: 057140					17577				
HORIZONTAL CO		METHOD (Indicate the me		etermine	the locationa	ıl data.)					
Ctatia Mada	Global	Positioning System (G	SPS)	V	Ton	oaran	Interpolation in the Map or DRG	on			
Static Mode Dynamic Mode (Kinematic)			1			otograph or DOQQ				
Precise Position							magery				
Signal Averaging]				Inte	rpolat	ion Other				
Real Time Differ	ential Proce	ssing			1 388						
HORIZONTAL A	CCURACY										
		GPS Data Quality					Interpolation Dat	a Quality			
FOM	<u> </u>	Meters			Sc	Source Map Scale: 1:24,000 1:100,000 Other					
EPE	±	Feet or ±	Meters			±Feet or ±Meters					
PDOP		And the second s									
otos:											
Photo ID# (WBID Site# ##)		Photo Purpose and D			Photo II			se and Direction			
	DOWNS	TREAM ; SITE #		(स्रा	(WDID_SILE		(upstream, ac	wisiteding other)			
0083-2-169	~ L/V	BETOLK WATERIN	e - Fenc	e - 7 .							
0002-7-141	UPSTRE	AM, SITE #2;	LIKANDEEL	adjoder \							
	LL CT										
		actually observe									
☐ Swimming		☐ Skin diving		CUBA	diving		☐ Tubing	☐ Water skiing			
☐ Wind surfing	3	☐ Kayaking		Boating			□ Wading	☐ Rafting			
☐ Hunting		☐ Trapping	□F	ishing			None of the above	☐ Other:			
Describe: (Inclu	ide number	of individuals recreat	ing, photo-do	cumenta	ation of evi	idence	of recreational uses, etc. Us	se Data Sheet D- Recreationa			
Use Interview w	when conduc	cting interviews.)									
ırrounding C	ondition	15*: (Mark all that pro	mote or impede	recreati	onal uses. A	ttach p	photos of evidence or unusual ite	ms of interest.)			
☐ City/county	parks	☐ Playgrounds	☐ MDC c	onserva	tion lands		☐ Urban areas	☐ Campgrounds			
☐ Boating acc	esses	☐ State parks	☐ Nationa	al forest	ts		☐ Nature trails	☐ Stairs/walkway			
☐ No trespass	sign	Fence	⊠ Steep s	lopes			☐ Other:				
					-						
Comments:											

WBID#	0083
Site#	2

ndications of Hun	nan Use*: (at	ttach photo	s)							
□ Roads □	Rope swings	☐ Foot path	ns/prints	□ Do	ock/platform	Ĭ Į Įiv	vestock W	/atering	□RV	/ ATV Tracks
☐ Camping Sites Comments:		☐ Fire pit/ri	ng	□ NI	PDES Discharge	☐ Fi	shing Tac	kle	☐ Oth	er:
Stream Morpholog	yy:									
Upstream View's	Physical Des									
Select one of the Channel Feature	3,000-ext.000-ext.000-co.000-co.00) Dista	nce from	W	idth (m)	Length ((m)	Median E	Pepth (m)	Max. Depth (m)
RIFFLE										
and account of the contract of										
POOL									····	
	MHROUME CHAIR CHILDRICA CANTON CANTON	kanta katalah di katal Katalah di katalah di	If so, is							
				h (m)	Length ('m)	Media	n Denth	(m) [Max Denth (m)
RIFFLE	Distance House	ir decess (iii)	,,,,,,,,	ii (111)		iii)	Micun	in Depin	(111)	
RUN										
POOL	34 T					- 5				
Substrate*: (These	values should	l add up to 1	00%.)							
			25	% Sand	Marie and a second	% Silt	35	% Mud	/Clay	% Bedroc
quatic Vegetatio	n*: (Note amo	ount of veget	tation or	algal g	rowth at the a	ssessme	ent site.)		
Vater Characteris	tics*: (Mark	all that apply	y.)							
ODOR:		☐ Sewage		Musky	☐ Chemical	, E	None	☐ Oth	er:	
COLOR:		Clear		Green	□ Gray		Milky	☐ Othe	er:	
BOTTOM DEPOSI	Γ:	☐ Sludge		Solids	Fine sedime	ents 🗆	None	☐ Oth	er:	
WATER SURFACE	DEPOSITION:	Oil		Scum	☐ Foam	Æ	None	☐ Oth	er:	
comments: Please	attach any add	litional com	ments to	this fo	rm.					
omprehensive underst	anding of water	conditions.	Conseque	ently, th	is information i	is not int	tended to	directly	influen	ice a
	Camping Sites									
lease verny that yo	Roods				is complete.					
surveyor's Signature	:: <u>////lll</u>	Mari			Date of	f Survey	y: <i></i>	118/0	<u> </u>	
Organization: <u>AE</u>	Soluter.	ns		_ Positi	on: <u>Eplv</u>	Spece	alys			
February 16, 2	2007		CC 5	1251	23-07					

					-			Diss	olved Oxyge	n
Waterbody ID: <u>の</u> のう	Site #:	0083-2	NGs.				Date:	5/18/0	1 Time:	1000
Estimated Channel Incisio	n:	(WBID_Site#)	low bank width	and water)			Dis	solved Oxyger	1: 6,87_	(mg/L)
GPS Location (taken at tra UTM X: カケチトリ	nsect 1): 09 UTM Y:	44275	7						1: 46,8	
Horizontal Accurac				(feet) Survey Segmen	+· 1 2	(meters)	5		1: 297.2	
Field Staff: R.M.M.T.	,	(meters	(20x average		. <u>15 /</u>	(meters)	Wate	er Temperature	: <u>3</u> 8 1311	<u> </u>
•			Tra	nsect Cross-	Section	775				
01 02	03	04	05	06	07	C	8	09	10	11

	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8		9	1	0	1	1
Measurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0.0	0.0	011	o n	9.0-	0,2	0.0	0.2	0,0	011	0,2	011	011	0,1	0.2	0.1	0,1.	01/	0,0	Oil	0,0	0,1
2	0.4	2011	010	oil	0,45	0.4	0.4	0.4	0.4	0.4	0,4	012	015	03	0.65	0,3	015	0,2	0,4	0,2	0.25	0, (
3	0.8	20.1	0.5	0,1	0.9	015	0.8	0,4	0,8.	0.5	0.0	03	9.0	015	***************************************	0,45	0.9	0,4	0.8	0.4	0.5	û . (
4	1-2	Loil	0.7	01	1.35	0.5	1.2	0.45	1.2	015	0.5	013	1.3	0.7	1-55	0,55	1.3	0,4	1-2	6.3	0.75	0,7
5	1.6	Dil	0.9	012	1.8	0.5	1.6	0.5	1.6	015	1.0	013	1.7	017	2-0	0,6	1.7	015	1.6	0,3	1.0	03
6	2.0	LO.1	***************************************	012	2.25	0,5	2,0	015	2.0	0.6	1,2	0.3	2.1	0,7	2,45	017	2-1	0,5	2-0	0,3	1.25	0.3
7	24	0.1	1.3	0.2	2.7	0,5	24	0.3	24	0.5	1.4	0.3	2.5	0.7	2.9	0,7	2.5	0,6	2-4	0.3	1.5	0.4
8	2.8	0.1	1.5	0.1	3,15	015	2.8	0.3	2.8	0.3	1.6	013	2.9	0,6	3.35	0,65	2.1	0.4	2.8	0,3	1.75	0.4
9	3.2	201	1.7	01	3.6	0.4	3, 2	017	3,2	0,3	1.8	OiZ	3.3	0,4	3,8	0.6	3.3	0 3	3.2	012	20	0.3
10	3.6	Z0:1	1.9	0.1	4.05	0.4	3.6	0.2	3.6	0,2	2.0	0,2	3.7	0.3	4.25	0,5	3.7	0,2	3.4	0 1	225	0.3
11	40	20.1	2.1	0.1	4.5	0.2	4-0	0.1	4.0	0.1	2.2	0,1	4.	011	4.7	0,3	4,1	0.2	4.0	0.1	2.5	0.2
12	4.1	0.0	2.4	0.0	4,5	0.0	40	0,0	4,0	0,0	2,5	0 10	4,4	0,0	5,0	0,3	4.1	0,0	4.6	0,6	2,6	0.0
Feature Type (riffle, run, or pool)	Riga	B	Rv	N	Poo	L	Pou	し	Poo		1211	N	Po	oL	Pool		Po	5 L	Poo l		Ru	N

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted with distance and depth = 0m.

WBID#	008	3
Site#	2	

Date & Time: 5	18/07 1050	S	lite Location Desc	cription (e.g., road crossing):						
			COUNTY 120AD 353 BRIDGE CROSSING							
	ctors): RMARTIN + 1). HOTH			,					
Current Weather Cond	litions: CLEAR		Facility Name: NOVETY WWTP Permit Number: MD 0102032							
	or Past 10 days: UNC	NowN								
Drought Conditions?:	No drought □; Phase I □	l; Phase II □; Pha	ase III □; Phase	IV □; Unknown □						
E Locations:	ES (UNIVERSAL TRANSVERS	SE MERCATOR PRO	IECTION, IN METER	₹\$)						
	es: UTM X: 057191			27098						
	TION METHOD (Indicate the me		, , ,	.)						
,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Slobal Positioning System (G	SPS)		Interpola	tion					
Static Mode	votio)			phic Map or DRG notograph or DOQQ						
Dynamic Mode (Kinem Precise Positioning Se			Satellite							
<u>_</u>	ivice		/	ation Other	——————————————————————————————————————					
Signal Averaging	D		interpola							
Real Time Differential			<u> </u>							
HORIZONTAL ACCUP			I I	I-tI-ti D-	-t- O - lit.					
	GPS Data Quality	pally management	2014. 11.24. Table 1994	Interpolation Da	ata Quality					
FOM	±Meters		Source	Map Scale: 1:24,000 1:100	,000 Other					
EPE	± <u>(h</u> Feet or ±	Weters		±Feet or ±	:Meters					
PDOP		•								
otos:										
Photo ID#	Photo Purpose and D	Direction	Photo ID#	Photo Purpo	ose and Direction					
(WBID Site# ##)	(upstream, downstream,	other)	(WBID_Site#_##)		downstream, other)					
0083-3-170 00	STREAM, SITE #3 T VESTOCK WATERING WN STREAM SITE	TRANSECT #1								
14- 151 = 0000	VESTOLK WATERING	- FENCE								
0002-2-111 601	NN STREAM SITE	なる TRANSEO 1 st	Ť							
9083_trackssi	+03-172 SITE#3	TRANSECT #7	l.							
	Uses actually observe									
	☐ Skin diving			☐ Tubing	☐ Water skiing					
☐ Wind surfing	☐ Kayaking	☐ Boatin		☐ Wading	☐ Rafting					
☐ Hunting	☐ Trapping	☐ Fishin		None of the above	Other:					
					Jse Data Sheet D- Recreation					
	conducting interviews.)	mg, photo docume	manon or evident	011001000000000000000000000000000000						
	,									
rroundina Cond	litions*: (Mark all that pro	mote or impede recre	ational uses. Attach	photos of evidence or unusual it	tems of interest.)					
☐ City/county parks		☐ MDC conser		☐ Urban areas	☐ Campgrounds					
		□ National for		□ Nature trails	☐ Stairs/walkway					
☐ Boating accesses	Fence			☐ None of the above	Other:					
☐ No trespass sign	rence	☐ Steep slopes		I None of the above	L Oulei.					
Comments:										

WBID#	0083
Site#	3

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	Livesto	ck Watering	₩ RV	/ ATV Tracks
☐ Camping Site	s	☐ Fire pit/ring	☐ NPDES Discha	rge 🛮 🗆 Fishing	Tackle	☐ Oth	er:
Comments:							
ream Morpho	logy:						
Upstream Vie	w's Physical Des	scriptions: Is there	e any water present	at this view?	□ Yes □	l No	
		If so, i	s there an obvious c	urrent? [⊐ Yes □	l No	
	he following cha	Commence of the Commence of th					
Channel Feature	Transect (i	#) Distance from access (m)	n Width (m)	Length (m)	Median I	Depth (m)	Max. Depth (m)
RIFFLE							
RUN						-	
POOL							
Downstream '	View's Physical 1	Descriptions: Is the	nere any water pres	ent at this view		□ No	
		20000000	, is there an obvious	s current?	□ Yes	□ No	
Select one of t	he following cha		idth (m) Len	gth (m) N	1edian Depth	(m)	Max. Depth (m)
RIFFLE		III access (iii)				()	
RUN							
POOL							
ubstrate*: (T)	nese values should	d add up to 100%.)					
			5 % Sand —	- % Silt	10 % Mud	/Clay	% Bedrock
nuatic Vegeta	ntion*: (Note am	ount of vegetation	or algal growth at th	ne assessment s	site.)		
			or ungur grow un un u		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Little a	ugoe on b	obble					·
ater Characte	eristics*: (Mark	all that apply.)					
ODOR:		☐ Sewage □	☐ Musky ☐ Chemic	cal No	ne 🗆 Otl	ner:	
COLOR:		Clear [☐ Green ☐ Gray	☐ Mi	lky 🗆 Oth	er:	
BOTTOM DEP	OSIT:		☐ Solids ☐ Fine se		-	ner:	
WATER SURF	ACE DEPOSITION:	-	☐ Scum ☐ Foam	∑ No	······································		
					<u> </u>		
omments: Ple	ase attach any ad	ditional comments	to this form.				
his information	is not to be used so	lely for removal of a	recreational use desig	enation but rathe	er is to provi	de a mor	re
mprehensive und	lerstanding of wate	r conditions. Consec	quently, this informat	ion is not intende	ed to directly	y influen	ice a
cision on the rec	reation use analysis	s but may point to co	nditions that need fur	ther analysis or t	that affect ar	other us	se.
			checked all applic				is complete.
	. ///	Mark	D-4	h C C	5/12/	07	
	ture: //////	AMM -	Dan	te of Survey:		/	
ırveyor's Signa	1		#_addition	. 1. 1			
ırveyor's Signa ganization:	AE SOLU	77045	Position:	VV. Spec	112157		
nrveyor's Signa rganization: February	AE SOLU	71 ows	Position: <u>R1</u>	VV. Spec	IALIST		

MEC Recreational Use Attainability Analysis Field Survey Sheet

	Dissolved Oxygen
Waterbody ID: 0083 Site #: $0083-3$	Date: <u>5/18/0</u> 7 Time: <u>/050</u>
(WBID_Site#)	- 0D
Estimated Channel Incision: $\angle 1.0$ (m) (height between low bank width and water)	Dissolved Oxygen: 9.88 (mg/L)
GPS Location (taken at transect 1):	m
UTM X: 0571968 UTM Y: 4427097	Dissolved Oxygen: <u>68,5</u> (% sat)
Horizontal Accuracy Estimate (GPS Data Quality): +/- /6 (feet)	
Agriculture Company of the Company o	Specific Cond: <u>_ ろのもぇ</u> Z(μS/cm)
Average Stream Width: 4-5 (meters) Length of Survey Segment: 150 (meters)	
(20x average stream width)	Water Temperature: 14,7 (°C)
Field Staff: R. MACTIN & J., FOTH	

	Transect Cross-Section																					
		01 02		03		04		C)5	o	6	0	7		8	09		1	0	1	1	
Measurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	Oil	0.1	0.0	0,0	0,3	0 -1	0.2	0.1	0,4	011	0:1	0.1	0,1	011	0.1	0.1	0.1	011	0,2	0.1	0,4	011
2	0,5	0.5	0,25	Lo.(1,0	0.2	0,6	0,2	0,8	0,2	0.5	0.2	0.5	0,2	0.6	D,0	0.6	0.3	0.6	0,2	0,8	0.2
3	0.9	0.7	0.5	Oil	1.7	0.3	1.0	0.3	1,2	0.2	0.9	0.3	0.9	013	1.)	0.3	* American	0,5	1.0	0.4	1.2	012
4	1.3	0.7	0.75	0.1	2.4	0,2	1.4	0,45	1.6	0,3	1.3	0.3	1.3	0.4	1.6	015	1.4	0,6	1.4	014	1.6	012
5	1.7	0,6	1.0	L0,1	3.1	0:2	1.8	015	20	0,3	1.7	0,4	1.7	0,4	2.)	0.6	2-1	0,6	1.5	0,4	2.0	013
6	2.1	0,7	1.25	20.1	3.5	0.4	22	0.3	2.4	0,4	2.1	0.5	21	0.5	2.6	0/6	26	0,5	2-2	0,3	24	0,3
7	2.5	0:6	1.5	20:1	4.5	0.7	2.6	0:5	2.8	03	2-5	0,5	2.5	0.5	3.)	0.5	3.1	0,5	2-4	0.3	2.8	0.3
8	29	0.5	1.75	20.1	5.2	0.6	30	014	3.2	0.3	29	0.4	2-9	0.5	3.6	0.5	3.6	0,4	3.0	0.2	3.2	6,3
9	3.3	0.3	2.0	2011	5.9	0,4	3.4	0.3	3.6	0.1	3.3	0.3	8.3	0,4	-	0.4	4.1	0,3	3.4	0.2	3.6	0,3
10	3.7	0.3	2.25	60.1	6.6	0:2	3,8	0.3	40	0.2	3.7	0.3	3.7	0.3	4.6	0,2	4.6	0.2	3.8	0,2	40	0.2
11	4.1	0,2	2.5	2011	73	0.1	4.2	0110	4,4	01	4.1	0:1	4.1	0,1	5.1	0.1	5.1	oil	4.2	0.(4.4	011
12	5.5	0,0	2,5	0.0	7.3	0.1	4,5	0.0	4,8	0.0	4,4	0.0	5,0	0,0	5,6	0.0	5.3	0,0	4,5	0,0	4,8	010
Feature Type (riffle, run, or pool)	F	001	Ri	FFLE	RUN]	Pool	Poo) L-	Poo	ا ا	Po.	-	Po	10V	Poo	اسا	Poc	S Constraint	Ru	N	Ror	J

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire_wetted width distance and depth = 0m.

Signed: Man Mant	Date:	5/13/07
anc	5-23-07	MKELDI

WBID#_	0083
Site#	Lf

Data Sheet B - Site Characterization

Date & Time: 5	118/2	1245		Site Loc	ation Descr	ription (e.g., road crossing):					
			1 ,	COUNTY ROAD 318 BRIDGE CROSSING							
reisonnei (Data	Coneciois).	2 MARTIN 4	7 toth	Facility Name: NOVELTY WWTP							
Current Weather	Conditions:	CLEAR		Permit Number: Mo 0102032							
Weather Conditi	ons for Past	10 days: UNKNC	NWO			The state of the s					
Drought Condition	ons?: No dr	ought □; Phase I □	; Phase II □;	Phase III	□; Phase I	V □; Unknown ◘					
			<u> </u>		·····	f					
Locations:		IVERSAL TRANSVERS	E MERCATOR F	PROJECTIO	N, IN METER	S)					
Site GPS Coor	dinates: UT	MX: 0746	Ele.		Y: 447	25324					
HORIZONTAL CO		ETHOD (Indicate the me	thod used to dete	ermine the lo							
	Global F	Positioning System (G	PS)		4	Interpolati	on				
Static Mode	(inomotio)					ohic Map or DRG otograph or DOQQ					
Dynamic Mode (Precise Positioni	·			\leftarrow	Satellite I						
				$\overline{}$		_ · · ·					
Signal Averaging				$-\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	Interpolation Other						
Real Time Differ					THE WARRANCE						
HORIZONTAL A					T.	Interpolation Da	to Quality				
FOM	±	GPS Data Quality Meters				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1				
EPE		Feet or ±			Source Map Scale: 1:24,000 1:100,000 Other						
PDOP		despitation to the state of the			1	±Feet or ±	Meters				
otos:											
Photo ID# (WBID Site# ##)		Photo Purpose and Da (upstream, downstream, o			oto ID# ID Site#_##)		se and Direction ownstream, other)				
	UPSTREAM	N SITE # H TO	ZANSECT #	i. l							
	0	ZEALL SITE LL	1 TO AN CZZE	· entro							
0063-4-11	DOWNSII	WAVE OUR PR	1 1104,0001	alogo /							
				L							
es Observe	d*: (Uses :	actually observed	d at time of	survey.)			· · · · · · · · · · · · · · · · · · ·				
☐ Swimming		☐ Skin diving	□ sc	CUBA divi	ng	☐ Tubing	☐ Water skiing				
		☐ Kayaking	□ Во	oating		☐ Wading	☐ Rafting				
☐ Wind surfing						0					
☐ Wind surfing	•	☐ Trapping	☐ Fi	shing		None of the above	☐ Other:				
☐ Hunting		□ Trapping			of evidence	None of the above					
☐ Hunting	de number c	☐ Trapping of individuals recreating			of evidence	None of the above					
☐ Hunting Describe: (Inclu	de number c	☐ Trapping of individuals recreating			of evidence	None of the above					
☐ Hunting Describe: (Inclu	de number c	☐ Trapping of individuals recreating			of evidence	None of the above					
☐ Hunting Describe: (Inclu	de number c	☐ Trapping of individuals recreating			of evidence	None of the above					
☐ Hunting Describe: (Inclu Use Interview w	de number c	☐ Trapping of individuals recreating interviews.)	ng, photo-doci	umentation		None of the above	se Data Sheet D- Recreationa				
☐ Hunting Describe: (Inclu Use Interview w	de number or conduct	☐ Trapping of individuals recreating interviews.)	ng, photo-doci	umentation	uses. Attach j	None of the above e of recreational uses, etc. U	se Data Sheet D- Recreationa				
☐ Hunting Describe: (Inclu Use Interview w	de number of the conduct of the condition parks	☐ Trapping of individuals recreative ting interviews.) S*: (Mark all that pron	ng, photo-doci	umentation recreational unservation	uses. Attach j	None of the above e of recreational uses, etc. U	se Data Sheet D- Recreationa				
☐ Hunting Describe: (Inclu Use Interview w rrounding C ☐ City/county ☐ Boating acc	de number of when conduct condition parks	☐ Trapping of individuals recreative ting interviews.) S*: (Mark all that pron	note or impede r	recreational inservation	uses. Attach j	None of the above e of recreational uses, etc. U	ems of interest.) Campgrounds				
☐ Hunting Describe: (Inclu Use Interview w	de number of when conduct condition parks	☐ Trapping of individuals recreative ting interviews.) S*: (Mark all that pron ☐ Playgrounds ☐ State parks	note or impede n	recreational inservation	uses. Attach j	None of the above of recreational uses, etc. Use the object of the above of the abo	ems of interest.) Campgrounds Stairs/walkway				
☐ Hunting Describe: (Inclu Use Interview w rrounding C ☐ City/county ☐ Boating acc	de number of when conduct condition parks	☐ Trapping of individuals recreative ting interviews.) S*: (Mark all that pron ☐ Playgrounds ☐ State parks	note or impede r	recreational inservation	uses. Attach j	None of the above of recreational uses, etc. Use the object of the above of the abo	ems of interest.) Campgrounds Stairs/walkway				

WBID#_	0083
Site#	4

Roads	
Stream Morphology: Upstream View's Physical Descriptions: Is there any water present at this view?	ks
Stream Morphology: Upstream View's Physical Descriptions: Is there any water present at this view?	
Upstream View's Physical Descriptions: Is there any water present at this view?	
Upstream View's Physical Descriptions: Is there any water present at this view?	
Upstream View's Physical Descriptions: Is there any water present at this view?	
If so, is there an obvious current?	
Select one of the following channel features: Channel Feature Transect (#) Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Downstream View's Physical Descriptions: Is there any water present at this view? Yes No If so, is there an obvious current? Yes No Select one of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Media	
RIFFLE RUN POOL Downstream View's Physical Descriptions: Is there any water present at this view? Yes No If so, is there an obvious current? Yes No Select one of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department No RIFFLE RUN POOL Substrate*: (These values should add up to 100%.)	
RIFFLE RUN POOL Downstream View's Physical Descriptions: Is there any water present at this view? Yes No If so, is there an obvious current? No Select one of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department Distance from access (m) Distanc	th (m)
Downstream View's Physical Descriptions: Is there any water present at this view? ☐ Yes ☐ No If so, is there an obvious current? ☐ Yes ☐ No Select one of the following channel features: Channel Feature ☐ Distance from access (m) ☐ Width (m) ☐ Length (m) ☐ Median Depth (m) ☐ Max. Depth (m) ☐ POOL Substrate*: (These values should add up to 100%.)	
Downstream View's Physical Descriptions: Is there any water present at this view? If so, is there an obvious current? Yes No Select one of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department RIFFLE RUN POOL Substrate*: (These values should add up to 100%.)	
If so, is there an obvious current?	
If so, is there an obvious current?	
Select one of the following channel features: Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department Distance from access (m) Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department Distance from access (m) Pool Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department Distance from access (m) Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Department Distance from access (m) Distance fro	
Channel Feature Distance from access (m) Width (m) Length (m) Median Depth (m) Max. Depth (m) POOL Substrate*: (These values should add up to 100%.)	
RUN POOL Substrate*: (These values should add up to 100%.)	h (m)
POOL Substrate*: (These values should add up to 100%.)	
Substrate*: (These values should add up to 100%.)	
Gravel 95 % Sand Silt 45 % Mud/Clay 9	
	Bedrock
Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)	
Little-No algae in whole/gravel	
· V	
Water Characteristics*: (Mark all that apply.) ODOR: Sewage	
COLOR	
COLOR: Green Gray Milky Other:	
BOTTOM DEPOSIT:	
WATER SURFACE DEPOSITION: Oil Scum Foam None Other:	
Comments: Please attach any additional comments to this form.	
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a	
decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.	
Please verify that you have completed all sections, checked all applicable boxes and that everything is comple	ta
	ic.
Surveyor's Signature:Date of Survey:5//8/07	
Surveyor's Signature:	
February 16, 2007	

MEC Recreational Use Attainability Analysis Field Survey Sheet

	Dissolved Oxygen
Waterbody ID: <u>0083</u> Site #: <u>0083 – 4</u>	Date: <u>5/18/07</u> Time: <u>1245</u>
(WBID_Site#)	7 7-
Estimated Channel Incision: <u>∠//</u> (m) (height between low bank width and water)	Dissolved Oxygen: 7,7 (mg/L)
GPS Location (taken at transect 1): UTM X: <u>0らそりにらし</u> UTM Y: <u>1425324</u> Horizontal Accuracy Estimate (GPS Data Quality): +/- 23 (feet)	Dissolved Oxygen: 78,6 (% sat)
	Specific Cond: 363,4 (µS/cm)
Average Stream Width: (meters) Length of Survey Segment: 150 (meters) (20x average stream width)	Water Temperature: 16,7 (°C)
Field Staff: RENEE MARTIN & JUSTUN FOTH	•

	Transect Cross-Section																					
	0	1	0	2	C	3	0	4	0	5	0	16	0	7	0	8		9	1	0		1
Measurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0.8	0.1	0.2	0.1	0.1	0.1	0.2	0.1	011	0.(0,2	0,1	011	0.1	012	0.1	0.4	0.1	0,0	۵,0	0.1	011
2	0.95	012	0.5	Oil	0.6	0.4	0,65	0.1	0.45	0,2	0.4	012	0,35	0,2	0.6	012	0,75	0,2	0:17	20.1	0.5	0.1
3	1.1	Oil	80	0.1	1.1	0,5	1.	0,2	0.8	0,3	0.6	0,2	0.6	013	1.0	0,2	1.1	0,3	0.34	201	0.9	0.3
4	1.25	0.1	augustalia	0,1	1.6	0,6	1.56	0.2	1.15	0,3	0.8	0.3	0.85	03	1.4	0,2	1.45	0,4	0.5	011	1.3	0,3
5	1.4	0.1		0.1	2.1	0.6	2.0	0.7	5	0,4	1.0	0.3	1. 1	0.3	1.8	0,2	1.8	015	0.18	0,2	1.7	0.2
6	1.55	0.1	1.7	LO. 1	2.6	0.5	2.45	0,2	1.85	0.4	1.2	0,3	1-35	013	2.2	013	2.15	015	0.85	0,1	2.	0.2
7	1.7	0.1	2,0	20.1	3.1	0,4	2.9	0,2	2.2	0.3	1.4	0.3	1.6	012	26	0,3	2.5	0,4	1.02	4011	2.5	0.2
8	1.85	0.1	2.3	0.1	3.6	0.3	3.35	0.3	2.55	0,3	->	013	1.85	0,2	3.0	0,2	2,85	0,4	1.19	L0.(2.9	0.1
9	2.0	0.1	2.6	0.1	4.1	0.3	3.5	013	2.9	0,2	1.8	012	2.1	011	3.4	0,2	3.2	012	1.36	20.1	3.3	0.2
10	2.15	0.1	2.9	0.1	4.6	0,2	4.25	0,2	3,25	0.2	20	012	2.35	0.1	3.8	0.2	3.55	0.1	1.53	Loil	3.7	0.1
11	2.3	0.1	3.2	0.1	5.1	0.1	4.7	011	3.6	0.1	2.2	0.1	2.6	0.1	4.2	0.1	3.9	011	1.7	Z0,(4.1	0.1
12	25	0.0	3,2	0.0	5.2	0.0	5.1	0,0	4,0	0.0	3,0	0.0	3,0	0,0	4,5	0,0	4,2	0,0	117	010	4,2	010
Feature Type (riffle, run, or pool)	βLi	VN	R	'u N	P	001-	Ri	'N	Ri	N	R	or	R	υN	VZ	UN	Bo	56	Rich	PLE	Ri	N

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

MK WAS

WBID#_	DD 83	
Site#	5	

Date & Time: 5/18	3 (07 1	330	Site	Location Descri	ription (e.g., road crossing):						
Personnel (Data Collecto] H	NY BB	BRIDGE CRUSSIA	JG ₁					
Current Weather Conditi			Fac	ility Name: N	OVELTY WHIP						
Weather Conditions for I	Past 10 days: UNKN	iann									
Drought Conditions?: N	o drought □; Phase I □]; Phase II □;	Phase	III □; Phase I	V □; Unknown 💢						
	, , , , , , , , , , , , , , , , , , ,										
e Locations: LOCATION COORDINATES	(UNIVERSAL TRANSVERS	SE MERCATOR F	PROJEC	CTION, IN METER	S)						
Site GPS Coordinates:	UTM X: 057719	18		Y: 442	24199						
	N METHOD (Indicate the mo		ermine t)	· ·					
Static Mode	bal Positioning System (C	SPS)		Topogram	Interpola Phic Map or DRG	tion					
Dynamic Mode (Kinemat	ic)				otograph or DOQQ						
Precise Positioning Servi				Satellite I							
Signal Averaging			X	Interpolat	tion Other						
Real Time Differential Pro	ocessing		\nearrow								
HORIZONTAL ACCURA	-										
	GPS Data Quality			Interpolation Data Quality							
FOM ±	Meters	3		Source	Map Scale: 1:24,000 1:100	,000 Other					
EPE ±	±Feet or ±	Meters			Meters						
PDOP	and the second second second second			<u> </u>	± Feet or ± Meters						
otoo											
otos:	Photo Purpose and I	Direction		Photo ID#	Photo Purne	ose and Direction					
(WBID_Site#_##)	(upstream, downstream,			(WBID_Site#_##)		downstream, other)					
∞83-5-175 UPSTI	ZEAM, SITE ±5	TRANSECT T	- \								
0083-5-176 DOWN	STREAM SITE D	F5 TRANSE	CT								
es Observed*: (Us	es actually observe	d at time of	curv	ev)							
T	Skin diving				☐ Tubing	☐ Water skiing					
☐ Wind surfing		□ Вс		urving	☐ Wading	☐ Rafting					
☐ Hunting	☐ Trapping	□ Fis			None of the above	Other:					
				tion of evidence		Jse Data Sheet D- Recreation					
Use Interview when con		S, p			, , , , , , , , , , , , , , , , , , , ,						
	,										
rrounding Condit	ions*: (Mark all that pro	mote or impede r	ecreation	onal uses. Attach p	photos of evidence or unusual is	tems of interest.)					
☐ City/county parks	☐ Playgrounds	☐ MDC cor	nservat	ion lands	☐ Urban areas	☐ Campgrounds					
☐ Boating accesses	☐ State parks	☐ National	forest	S	☐ Nature trails	☐ Stairs/walkway					
☐ No trespass sign	☐ Fence	Steep slo	pes		None of the above	☐ Other:					
_				······································	7						
Comments:											

WBID#	0083
Site#	5

Data Sheet B - Site Characterization

(must be completed for each site)

□ Roads □	Rope swings	☐ Foot paths	/prints	Dock/platform	ΠTiv	estock Water	ing PW	g RV / ATV Tracks		
	Rope swings		-							
Comments:	<u> </u>	☐ Fire pit/rin	g U 1	NPDES Discharge	L FIS	hing Tackle	☐ Oth	er: 		
\\	ONE									
	<i>'</i>									
eam Morpholog	у:									
Upstream View's	Physical Des	criptions: Is	there any w	ater present at	this view	⁄? □ Yes	□No			
		-		an obvious curi		□ Yes	□ No			
Select one of the f	ollowing cha			an oovious can	ient.	1C3	шпо			
Channel Feature	Transect (#	#) Distan	ce from	Width (m)	Length (m) Med	dian Depth (m)	Max. Depth (m)		
RIFFLE		acces	ss (m)							
RUN										
POOL										
Downstream View	v'e Physical l	Docarintions	. Ic there on	y water precent	at this w	iaw? 🗆 V	es □ No			
Downstream viev	v's Physicai i	Descriptions				iew? 🗆 Y				
				e an obvious c	urrent?	□ Y ₀	es 🗆 No			
Select one of the f				T 2		M I' D	3 ()			
Channel Feature RIFFLE	Distance from	n access (m)	Width (m)	Length	(m)	Median D	eptn (m)	Max. Depth (m)		
RUN										
POOL										
bstrate*: (These	values should	dadd up to 10	00%.)							
% Cobble		% Gravel	% Sa	nd	% Silt	100 %	Mud/Clay	% Bedroo		
uatic Vegetatio	1*: (Note amo	ount of vegeta	ation or algal	growth at the	assessme	nt site.)				
,	(-,010			<i>g</i> - · · · · · · · · · · · · · · · · · ·						
NONE										
ater Characteris	tics*: (Mark	all that apply	.)							
ODOR:		☐ Sewage	☐ Musky	☐ Chemical	Þ	None \square	Other:			
COLOR:		Clear	☐ Green	☐ Gray		Milky 🗆	Other:	W. W		
BOTTOM DEPOSIT	·	☐ Sludge	☐ Solids	Fine sedim	nents \square	None	Other:			
WATER SURFACE	DEPOSITION:	☐ Oil	☐ Scum	☐ Foam	Ø	None	Other:			
1 - 71		1: 1					,,,,,,,,,,,,,			
omments: Please	attach any ad	ditional comm	nents to this	iorm.						
his information is no	t to be used sol	elv for remova	ıl of a recreati	onal use designa	tion but r	ather is to p	rovide a mor	e		
nprehensive understa	inding of water	conditions. C	Consequently,	this information	is not into	ended to dir	ectly influen	ce a		
cision on the recreation	on use analysis	but may point	to conditions	that need further	r analysis	or that affe	ct another us	e.		
ease verify that yo	u have comn	leted all sect	ions checke	d all annlicah	le boyes	and that e	everything	is complete		
•	//-						•	-		
rveyor's Signature ganization:	Muce	MARL	e	Date o	of Survey	": <i>5/</i>	18/07			
A-1	Ca1d	*	D	Balil		ee in a	the source			
ganization: 📝 🥒	and the town of I	C. A. V. Vernie	Pos	ition:		- Same & B. Compared Land	5 7			

February 16, 2007

WE 5-23-01

	MEC Recreational Use Attainability Analysis Field Survey Sheet Dissolved Oxygen																						
			00	d) s			6 A 600 7	gazzár										A VANAGE DE L'ANGES DE	Ived O				
	Watert	oody ID:	-00	<u>85 </u>		Site #:										Date:	5/19	107		Time:	1330		
	GPS Location (taken at transect 1):															Diss	solved C	Oxygen:	57.	96_	(mg/L)		
	UTM X: <u>0577198</u> UTM Y: <u>4474199</u> Horizontal Accuracy Estimate (GPS Data Quality): +/- \6 (feet)															Dissolved Oxygen: 62.8 (% sat)							
																	Specific	Cond:	35	8.0	(µS/cm)	
	Averag	Average Stream Width: 6 (meters) Length of Survey Segment: \(\begin{array}{c} \lorento \text{(meters)} \\ \lorento															Water Temperature: <u>/6, 9</u> (°C)						
		(20x average stream width)															r Temp	erature:	16,		(°C)		
	Fiel	Field Staff: RENEE MARTIN & JUSTYN FOTH																					
										Trans	ect Cr	oss-Se	ection										
X.)1	0)2	C)3	0	4	0	5	C	6	C)7	0	08 09			10		11		
Measurement	Distance (m)	Depth (m)	Distance	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
Measurement						1					:											011	
1	0,0	0.0	0:0	0.1	0.0	0.1	0,1	0.1	0.0				T	0,2			0,2	0.1	0,0	0,1	0.2		
2	12	71:0	119	0.6	1.7	0.4	0.85	0.4	0,75	0.3	0,8	0,6	0,4	0,5	0,5	0.5	115	0.3	0.8	0,3	019	0,2	
3	2.4	>1.0	2.4	1.0	24	0.8	1.6	0.7	1.5	0.6	1.6	1.0	0.8	>1.0	0.9	71.0	2-8	0.4	1.6	0,4	1.6	0,3	
4	3.6	>1.0	3.6	71.0	3.6	>1,0	2.35	>1.0	2.25	0.6	2.4	>110	1.2	>1,0	1.3	71.0	4.	0,4	24	015	23	0,4	
5	48	>1.0	4.8	71.0	4.8	>1,0	3.1	71.0	3.0	1:0	3.2	>1:0	1,6	>1.0	1.7	1.0	5	0,2	3.2	0.9	3.0	014	
	0.0	>110	6.6	71:0	0.0	>1.0	3.85	0.9	3.75	>1.0	4.0	71.0	2.0	0.6	2-1	0.8	6.7	0.0	4.0	0.8	3.7	m,3	
7	7.2	71.0	7.2	>1:0	7.2	71.0	4.6	0.7	4.5	کاری	4.8	71,0	2-4	0,4	2.5	0.6	8.D	0.0	4.8	100	4,4	0.3	
8	8.4	>1.0	8.4	710	8.4	200	5,35	0.5	5,25	71.0	5.6	フルロ	2.8	0.4	2.9	0.2	9,3	0,3	5,6	7110	5.1	0.4	

0.2

0.0

POOL

80

0,0

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

0.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

>1.0

010

Feature Type (riffle

run, or pool

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

10,8

12.0

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire/wetted width distance and depth = 0m.

8.0

0,0

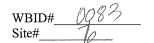
Signed:	Mu	Mark	Date:	5/18/07	au spsp
	, ,	Muc	from my form of many		UN

BOL

1.0

0.7

0.0



Data Sheet B - Site Characterization

Date & Time:	5/19/07	1445		Sit	e Location Des	cription (e.g., road crossing):	N-111111111111111111111111111111111111					
		R.MARTIN + !	IGSTH		TY PTMUQ	142 LOW WATER	- G2055ING					
			170111	Fa	cility Name: ト	JOVELTY WWTF						
Current Weather	Conditions:	:CLEAR		Pe	rmit Number:	mo 0102032						
Weather Condition	ons for Past	10 days: UNKN	OWN									
Drought Condition	ns?: No dr	ought □; Phase I □	; Phase II □]; Phas	e III □; Phase	IV □; Unknown 🗹						
ite Locations:	DINATES (UN	IIVERSAL TRANSVERS	E MERCATOR	PROJE	CTION IN METE	RS)						
		MX: 5792				419565						
l .		ETHOD (Indicate the me		etermine								
		Positioning System (G				Interpola	tion					
Static Mode Dynamic Mode (H	(inematic)					phic Map or DRG						
Precise Positionir						Aerial Photograph or DOQQ Satellite Imagery						
Signal Averaging				\rightarrow		ation Other						
Real Time Differe	ntial Proces	ssina		1/								
HORIZONTAL AC		-										
		GPS Data Quality				Interpolation Da	ata Quality					
FOM	±	- Meters					000 OH					
EPE		26 Feet or ±		 }	Source	e Map Scale: 1:24,000 1:100						
PDOP	· ·	State Control of the State of Control of Con			±Feet or ±Meters							
hotos:					•							
Photo ID#		Photo Purpose and D			Photo ID#		ose and Direction					
(WBID_Site#_##)	CIP STRA	(upstream, downstream, o		<u></u>	(WBID_Site#_##)	(upstream, o	downstream, other)					
		WOSSING	Country to the Bills are F									
0063 1, 176			14									
0003-4-110	DWN STI	REAM SITE H	TO TRANSEO	件だ								
lses Observed	*: (Uses 2	actually observed	l at time o	f surv	vey.)							
☐ Swimming		☐ Skin diving		CUBA	diving	☐ Tubing	☐ Water skiing					
☐ Wind surfing		☐ Kayaking	□ E	Boating		☐ Wading	☐ Rafting					
☐ Hunting		☐ Trapping	□ F	ishing		None of the above	☐ Other:					
Describe: (Includ	le number c	of individuals recreating	ng, photo-do	cument	ation of evidence	ce of recreational uses, etc. L	Jse Data Sheet D- Recreational					
Use Interview w	nen conduct	ting interviews.)										
Surrounding Co	ondition	S*: (Mark all that pron	note or impede	recreati	onal uses. Attach	photos of evidence or unusual it	ems of interest.)					
☐ City/county]	oarks	☐ Playgrounds	☐ MDC c	onserva	tion lands	☐ Urban areas	☐ Campgrounds					
	sses	☐ State parks	☐ Nation:	al fores	ts	☐ Nature trails	☐ Stairs/walkway					
☐ Boating acce			· /									
☐ Boating acce☐ No trespass s	ign	☐ Fence	Steep s	lopes		☐ None of the above	☐ Other:					
☐ No trespass s	ign	☐ Fence	Steep s	lopes		☐ None of the above	Other:					
	ign	☐ Fence	Steep s	lopes		☐ None of the above	Other:					

WBID#	0083
Site#	# 10

ndications of Hu	uman Use*: (a	ttach photo	s)	W-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1						
Roads	☐ Rope swings	☐ Foot path	ns/prints	□ Doc	k/platform	Li	vestock V	Vatering	□RV	/ ATV Tracks
☐ Camping Sites		☐ Fire pit/ri	ing	□ NPI	ES Discharge	☐ Fi	shing Tac	ckle	☐ Oth	er:
Comments:										
tream Morphol	ogy:								ASSESSED VALUE	
Upstream View	's Physical Des				r present at the		v? □' □ }		l No No	
Select one of the Channel Feature	e following char Transect (#	t) Distar	e s: nce from ess (m)	Wio	lth (m)	Length	(m)	Median D	epth (m)	Max. Depth (m)
RIFFLE	WHAT A STATE OF THE STATE OF TH									
RUN										
POOL										
Select one of th	e following cha	nnel feature	If so, is	there a	n obvious cui	rrent?	E	l Yes	□ No	
Channel Feature RIFFLE	Distance from	n access (m)	Width	(m)	Length (r	m)	Media	an Depth (m)	Max. Depth (m)
RUN										
POOL										
ubstrate*: (The	ao rolyna abayld	1 0 d d 1 1 1 4 0 1	000/)			0.000,000,000,000,000,000	1			
10 % Cob		Gravel		% Sand	and the second second	% Silt	William Co.	% Mud/	Clay	% Bedrock
quatic Vegetati	ion*: (Nata ama	unt of wood		1001 04			- L			
ſ	Present	ount of veget	tation of a	igai gi	owin at the as	ssessine	ent site.)		
/ater Character	istics*: (Mark a	all that apply	v.)							
ODOR:		☐ Sewage		usky [☐ Chemical		None	☐ Othe	er:	
COLOR:		∑ Clear	□ G:	reen l	□ Gray		Milky	☐ Othe	r:	
BOTTOM DEPOS	SIT:	☐ Sludge	□ Sc	olids	Fine sedimer		None	☐ Othe	er:	
WATER SURFAC	CE DEPOSITION:	□ Oil	□ Sc		□ Foam		None	☐ Othe		
omments: Pleas	se attach any add	litional com	ments to t	hic for	2		**			
Ommonts. 1 leas	se attach any acc	intional com	inches to t	1115 1011	11.					
This information is a comprehensive under ecision on the recrease.	standing of water	conditions.	Consequen	tly, this	information is	s not int	ended to	directly	influen	ce a
lease verify that	you have comp	leted all sec	tions, che	cked a	ll applicable	boxes	and th	at every	thing i	is complete.
urveyor's Signatu	re: <u>///////</u>	e Mack	gare."		Date of	Survey	y:	5/18/	07	
rganization:	E GOLUTIO	W/S		Position	n:	Ste	E/AL	1.ST		
February 16	, 2007	B	n C	5-2	n: <u>ENV</u>	A	K.5%	rolo	7	

MEC Recreational Use Attainability Analysis Field Survey Sheet

											-							Disso	Ived O	xygen		
	Waterb	ody ID:	<u> 200</u> 8	3	· y't 40 40	Site #:	008	3-6								Date:	5/18	(07-		Time:	1445	<u> </u>
	1	ted Cha				(m) (he	(WBID_		w hank	width ar	nd wate	r)				Diss	olved C	Oxygen:	7.	56	(mg/L)	
	GPS Lo	ocation	(taken a	t transe	ct 1):					Width G	ia wate	''							, principal			
	UTM X: 579203 UTM Y: 4419565 Horizontal Accuracy Estimate (GPS Data Quality): +/- 26 (feet) Specific Cond: 2995															, 6	(% sat)					
																	Specific	c Cond:	29	9.5	(µS/cm)
	Averag	Average Stream Width: 5. 0 (meters) Length of Survey Segment: 50 (meters)																				
	(20x average stream width) Water Temperature Field Staff: PENEE MARTIN & JUSTYN FOTH															erature:	1+	<u>_</u>	(°C)			
	Transect Cross-Section															10 75						
	01 02 03 04 05 06 07 08 09 10 11 Distance Distance															1						
leasurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)		Depth (m)		Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0.1	0.1	0.5	0.1	0.7	0,1	Oil	0,1	012	0.1	0,3	011	0,3	011	0,2	011	100 l	01/	0	011	011	0.1
2	0,55	0,1	1:35	0.2	1.2		015	011	0,55	0,1	0,85	012	0.9	0,3	0.85	0.2	0,7	0.1	0.5	0.3	0,6	0.5
	1.0		2,2	013	1 7	100	0.9		0.9	0.2	14	0,3	1.5	014	1.5	0,2	1.3	0,3		0,3		0.6
3	<u> </u>	0.1			20		1.3			X	1.95		7 1			013	19		1.3			0.6
4	1.45	0.1	3,05		2.2	0 1	110	0,2	1.25	0,2		0.4	6.1				2 · [014	1 7	0,4	1.0	
5	1.9	0.1	3.9	012	2.7	0.1	1. +	0,2	1-6	0,3	2.5	013	2.7			0.4	2.5	0.4	1. +	0.4	2.1	0,7
6	2.35	0,1	4.75	0,3	3.2	0,7	2-1	012	1.95	0,2	3.05	0,3	3.3	015	3.45	013	3.1	0,4	2.1	0,4	2.6	0.6
7	2.8	0.1	5.6	0,3	3.7	0.2	2.5	0,2	23	012	3.6	013	3.9	0.5	4.	0.4	3.7	0,4	2.5	0,3	3.	0,6
8	3,25	0.1	6.45	0.4	4.2	0.3	2.9	0.2	2.65	0,2	4.15	512	4.5	0.5	4-75	04	4.3	0,6	2.9	0,2	3.6	0,5
9	3.7	0.1	7.3	0,5	4.7	0.3	3.3	012	3,0	0.2	4.7	012	5.)	0.4	5.4	013	4.9	015	3.3	0.2	4.	0,4
10	. 1	10.1	8,15	0.4	5.2	0.2	3.7	0:1	335	0,2	5.25	0,2	5.7	013	6.05	0:3	5.5	0.4	3.7	011	46	0.2
			9.0		5.7		4.1		3.7		5.8	. 1	6.3	0.1	1.7	- I	6.1	0.3	-	011	5.1	0 . /
11	4.6	0.1		0,3	~ /	32		011		0.0		<i>◇</i> 1	***************************************		1018	0/1	· ·	0.37	4,2	0,0		
12 ature Type (riffle	414	0.0		0,3	bil	0:0	4,3	010	4,3		614	010		0,0 Rn	<u> </u>	0.0	(4,2 R	- Series Maria		2145		0,0
run, or pool	Transects v	PLE.		on left o	lescending.		,	ht descend		UN	R	บฟ	Po.	The	K	UN	181	<i>J</i> N	10	1 /4	FO	06
Notes	I I GI I DECLO	will be illeas	uisu pegnii	mig on roll c	account runing	Saute and In		g 40000114					100 11.	F \ /								

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

signed: Muse Mark Date: 5/1

WBID# D083

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

Date & Time:	6/18/03	1530		Sit	te Loca	tion Desc	ription (e.g., road crossing):	Begn, where Tvilo			
		E.MARTIN + ;	1. Forth	Site Location Description (e.g., road crossing): Begn, when Trib N 250 wekens From Transect #1, Site #6							
Current Weather			3 6 - 7 6 5				ND 0102-032				
				Pe	rmit N	ımber: (NO 0102-632	······			
Weather Condition	ons for Past	10 days: UNKNO	WN					į			
Drought Condition	ons?: No dr	ought □; Phase I □	; Phase II 🗆	; Phas	se III 🗆	l; Phase I	V □; Unknown 🗹				
ite Locations:											
	DINATES (UN	IIVERSAL TRANSVERS	E MERCATOR	PROJE	CTION,	IN METER	S)				
Site GPS Coore	dinates: UT	MX: 5979L	105		•	Y: 4L	119499				
	LLECTION M	ETHOD (Indicate the me	thod used to def	ermine)				
Static Mode	Global F	Positioning System (G	PS)		/	Topogran	Interpolat phic Map or DRG	ion as said the reserved			
Dynamic Mode (I	(inematic)			1			otograph or DOQQ				
Precise Positioni	ng Service					Satellite I	magery				
Signal Averaging		-				Interpolat	tion Other	()			
Real Time Differe	ential Proces	ssing		1							
HORIZONTAL A	CCURACY	ESTIMATE									
		GPS Data Quality					Interpolation Da	ta Quality			
FOM	±	Meters				Source	Map Scale: 1:24,000 1:100	,000 Other			
EPE	Feet or ±	Meters				±Feet or ±	Meters				
PDOP		испольбобратууч». •									
hotos:											
Photo ID# (WBID Site# ##)		Photo Purpose and D				o ID# Site# ##)		se and Direction			
	NOSTREA	M; SITE #7		廿1	(MBID	Site# ##)	(upsireani, o	ownstream, other)			
	0, 0, 1										
0083-7-1801	DOWNSTI	ZEAM SITEH	I TRANSECT	世1							
				•		1					
s <u>es Observed</u>	*: (Uses 2	actually observed	d at time of	surv	ey.)						
☐ Swimming		☐ Skin diving		CUBA	diving		☐ Tubing	☐ Water skiing			
☐ Wind surfing		☐ Kayaking	□ в	oating			☐ Wading	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fi	shing		······································	None of the above	☐ Other:			
	de number o				ation o	fevidence		se Data Sheet D- Recreational			
Use Interview w			-: •				•				
		1 .									
urrounding C	ondition	S^: (Mark all that pron	note or impede:	recreati	ional use	es. Attach p	photos of evidence or unusual ite	ems of interest.)			
☐ City/county	parks	☐ Playgrounds	☐ MDC co	nserva	tion la	nds	☐ Urban areas	☐ Campgrounds			
☐ Boating acce	esses	☐ State parks	☐ Nationa	fores	ts		☐ Nature trails	☐ Stairs/walkway			
☐ No trespass s	ign	☐ Fence	Steep sle	opes		-	☐ None of the above	☐ Other:			
Commit			7								
Comments:											

WBID#_	0083
Site#	No. of the

Data Sheet B - Site Characterization

dications of Human Use*:	(attach photo	s)	T		Τ			···	
☐ Roads ☐ Rope swings	☐ Foot path	ns/prints	☐ Doc	k/platform	Live	stock W	Vatering	□RV	/ ATV Tracks
☐ Camping Sites Comments:	Comments:				☐ Fish	ning Tac	kle	Oth	er:
tream Morphology: Upstream View's Physical D Select one of the following ch		If so, is t		r present at th		? □ Y		l No No	
Channel Feature Transect	(#) Dista	nce from	Wi	dth (m)	Length (n	n)	Median D	epth (m)	Max. Depth (m)
RIFFLE	acc	ess (m)							
RUN								·	
POOL		***************************************							
RIFFLE	nannel feature rom access (m)	es: Widt	h (m)	Length (n	n)	Media	an Depth ((m)	Max. Depth (m)
			h (m)	Lenoth (n	n)	Media	n Denth ((m)	Max Denth (m)
RUN POOL									
quatic Vegetation*: (Note ar	% Gravel nount of vege	80 tation or	% Sand algal gr	owth at the as	% Silt sessmer	nt site.)	% Mud/	Clay	% Bedroo
ater Characteristics*: (Mar	k all that apply	y.)							
ODOR:	☐ Sewage		Musky	☐ Chemical	<u> </u>	/ None	☐ Othe	er:	
COLOR:	Clear		Green	☐ Gray		Milky	☐ Othe	er:	
BOTTOM DEPOSIT:	☐ Sludge		Solids	Fine sedimen	nts 🗆]	None	☐ Othe	er:	
WATER SURFACE DEPOSITION	√: □ Oil			☐ Foam		None	☐ Othe	er:	
omments: Please attach any a	dditional com	ments to	this for	m.					
This information is not to be used somprehensive understanding of ware ecision on the recreation use analys	olely for remover conditions.	ral of a rec Consequent to cond	creationa ently, this itions tha	l use designation is t need further a	not inter malysis o	nded to or that a	directly affect and	influen other us	ce a e.
lease verify that you have com									is complete.
urveyor's Signature: ///////	y MATL			Date of	Survey:		11810	+	***************************************
urveyor's Signature: rganization: February 16, 2007	<u> </u>		_ Positio	n: <u>ENV.</u>	SPECIA	<u>tUST</u>			
February 16, 2007	(Ar (_ Z	5 - 2	5-07 1	THE.	5/2	「つフ		

MEC Recreational Use Attainability Analysis Field Survey Sheet

								parate				-						Disso	lved O	xygen		
	Waterb	ody ID:	008	33		Site #:	008	3 - 7								Date:	5/18	107		Time:	153	10
	Estima	ted Cha	nnel Inc	cision:	41,0		(WBID_	•	w bank	width a	nd wate	r)				Diss	olved C	Oxygen:	7.	63	(mg/L)	
	GPS L	ocation	(taken a	t transe	ct 1):		-										- l 1 C	· · · · · · · · · · · · · · · · · · ·	12,10	<	(0/+)	
		UTM X:	<u>। १८८८</u> ntal Acc	uracy E	; stimate	UTM Y: (GPS D	ata Qua	ality):	! +/- 2	what	(feet)					Diss	solvea C)xygen:	80	<i>}</i> -2	(% sat)	
					are a second second	,						•	agein	Sn.			Specific	Cond:	314	16	(µS/cm))
	Averag	je Strea	m Width	<u>):</u>	5		(1	meters)	•	gth of Su erage stre		egment:	1	JU (I	neters)	Wate	r Tempe	erature:	17	7 - 7_	(°C)	
	Field	d Staff:	REM	EE N	VARITI	N)	+ JUS	NYTE	•	-		-							- L: L	<i>J</i> -7	(- /	
										Trans	sect Cr	oss-Se	ction								3.00ml	
)1		2		3	0	4)5)6		7	0	8	0	9	1	0	1	1
ement	Distance (m)	Depth (m)	Distance	Depth (m)	Distance	Depth (m)	Distance	Depth (m)	Distance (m)	Depth (m)	Distance	Depth (m)	Distance (m)	Depth (m)	Distance	Depth (m)	Distance (m)	Depth (m)	Distance	Depth (m)	Distance	Depth (m
1	0,3	Or l	0.0	an le	m l	0.1	0.4	011	0,0	0.5	<i>n</i> . I	n. 1	es i	0.1	0:2	0.1	0.1	0.1	D. I	0.7		
ا م	0,75	, , , , , , , , , , , , , , , , , , ,	0.25	012	0.55	0.4	018		0,55	0.7	0.6	0.5	0.4	0,2	0.5	0,1	0,6	0.3	0.65	- A - 1 - 1	0,75	0,3
2	1.2	2011	0.5	0.2	1.D	0.6	1.2	0.2	1.1	0.8	11	0.0	0.7			0.2	1.1	0,5	1.7	0.6	1.2	0.4
3	1.65			() · · · ·	1.45	0.8	1.6		1.65	>40	1 1 0	0,8	110	0.2	1.	0.2	1.6	0,6	1.75	6.7	1.65	0,3
4	2.00	0:2	0.75	1//	1.9		2.0	0.3	2.2	71.0	2-1		1.3	0,2	1.1	0.3	2.1	0,6	23	0.7	2	0,5
5	7 7	0.2	1	0,3	1 '	Orb	`	0,4				110			1.7	013		· · · · · · · · · · · · · · · · · · ·	205	0.7	2:55	
6	2.55	0.1	1.25	0.7.2	2.35	0,5	2.4	0,3	2.75		T	0,9	1.6	0,3			3.1	0,5	2.00			9.9
7	3.0	0.1	1.5	0,3			2-8	0,4	3.3	>1,0	3.1	0.7	1.9	0,2	2.0	012		0.5	3.4	OIT	3.0	
8		0.1	175	0,2	3.25	0.2	3.2	0.3	3.85			0,5			2.3		3.6	0,5		0, 7 pu	3/45	1
9	3.9	011	2.0	0,2	3.7	0,2	3.6		4.4	10	4,	0:4			2.6		<u> </u>	0,6	4.5	0.5		0,5
10	4.35	0.1				011	4,0		495	0,7	4.6	0,5	2.8	0.1	2.9	W 120	4.6	0.3		03	4:35	0,3
11	4.8	10.1	2.5	ו מו	4.6	0.1	4.4	0.1	5.5	0.2	5.1	0.1	3.1	0.1	3.2	0.1	5.1	10.1	5.6	0.1	4.8	0.1

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

0.0

Feature Type (riffle

run, or pool

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

pool

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire, wetted width distance and depth = 0m.

0.2

0.0

POOL

Signed:	Marie	Ment	Date:	5/18/0
		Auc	5 - 23 - o	Second Second

POOL

3,8

RUN

0.0

RUN

Ale Spito

WBID#	0083
Site#	8

Data & Times/W	£ 60 6-	Lailen 1	. 23	Sit	te Location D	escription (e.g., road crossing	<i>a)</i> .				
		118/07 16		_							
Personnel (Data C	Collectors):	C. MARTINA J	· F51H	3	FIRST O	STEEST-BETHEL	,MO				
Current Weather	Conditions:	CLEAR		Facility Name: NOVELTY WWTP Permit Number: MO 0102032							
		10 days: UNKNOW		re	mit Number	MC 0.02-32					
				_							
Drought Conditio	ns?: No dr	ought ∐; Phase I ∐	; Phase II ∐	; Phas	se III ∐; Pha	se IV 🗆; Unknown 🗸 💮					
Site Locations:											
		IVERSAL TRANSVERS		PROJE							
		MX: 05828		vitereja kortru, hoda ta		414617					
HORIZON I AL COL		ETHOD (Indicate the me Positioning System (G					olation				
Static Mode		o,(c	/	المن ا	Topog	raphic Map or DRG					
Dynamic Mode (K	(inematic)				/ Aerial	Photograph or DOQQ					
Precise Positionin	ng Service				Satell	te Imagery		$\perp X$			
Signal Averaging					Interp	olation Other					
Real Time Differe	ntial Proces	sing		1							
HORIZONTAL AC	CCURACY E	ESTIMATE									
A STATE OF S		GPS Data Quality				Interpolation	Data Quality				
FOM	±	Meters			Sour	ce Map Scale: 1:24,000 1:10	00,000 Other				
EPE	±	5 Feet or ±	Meters								
PDOP		*accountered.				±Feet or	Weters				
Photos:											
Photo ID#		Photo Purpose and D	irection		Photo ID#	Photo Pur	pose and Direction				
(WBID Site# ##)		(upstream, downstream, o	ther)		(WBID_Site#_##		m, downstream, other)				
0083_8_181	DOWN S	TREAM SITE #8	TRANSECT	41							
0083-8-182	UPSTREA	M SITE#8T	RANSECT 1	41							
Js <u>es Observed</u>	*: (Uses 2	ctually observed	l at time of	f surv	ey.)						
☐ Swimming		☐ Skin diving		CUBA	diving	☐ Tubing	☐ Water ski	ing			
☐ Wind surfing		☐ Kayaking	□в	oating		☐ Wading	☐ Rafting				
☐ Hunting		☐ Trapping	□ F	ishing		None of the above	☐ Other:				
Describe: (Includ		f individuals recreating			ation of evide	nce of recreational uses, etc.	Use Data Sheet D-	Recreational			
Use Interview wh	nen conduct	ing interviews.)									
Surrounding Co	ondition	S*: (Mark all that pron	note or impede	recreati	ional uses. Atta	ch photos of evidence or unusua	l items of interest.)				
☐ City/county p		☐ Playgrounds	☐ MDC co			☐ Urban areas	☐ Campgrou	unds			
☐ Boating acces		☐ State parks	☐ Nationa			☐ Nature trails	☐ Stairs/wal				
□ No trespass sign □ Fence □ Steep slop						☐ None of the above	Other:	···-J			
						Troile of the above	L Oner.				
Comments:											
I Lan	o Alac 1										
TUNE	? Nean k	<u> </u>									

WBID#	0083
Site#	R

Data Sheet B - Site Characterization

Indications of Hu	ıman Use*: (a	ttach photos	s)					
Roads	☐ Rope swings	☐ Foot path	s/prints 🗆	Dock/platform	☐ Livestock	Watering	□ RV /	ATV Tracks
☐ Camping Sites		☐ Fire pit/rii	ng 🗆	NPDES Discharge	☐ Fishing T	ackle	☐ Othe	r:
Comments:	NONE						W	
Stream Morpholo Upstream View				rater present at t			No No	
Select one of the Channel Feature	e following cha Transect (#	#) Distan	nce from ss (m)	Width (m)	Length (m)	Median De	epth (m)	Max. Depth (m)
RIFFLE		acce	35 (111)					
RUN								444,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
POOL								
Select one of the Channel Feature RIFFLE RUN POOL	Distance from		Width (m)	Length ((m) Mec	lian Depth (m)	Max. Depth (m)
Substrate*: (The		d add up to 10% Gravel	00%.) 20 % Sa	nd sagasadossidos	% Silt	% Mud/	Clay	% Bedro
			- 27				<u> </u>	70 Dodi 0
Aquatic Vegetati Algae on	Substrate			growth at the a	ssessment site	2.)		
Vater Character	istics*: (Mark	all that apply	·.)					
ODOR:		☐ Sewage	☐ Musky	☐ Chemical	None	☐ Othe	er:	
COLOR:		Clear	☐ Green	☐ Gray	☐ Milky	∪ Othe	r:	
BOTTOM DEPOS	SIT:	☐ Sludge		Fine sedime	ents 🗆 None	☐ Othe	er:	
WATER SURFAC	CE DEPOSITION:	□ Oil	☐ Scum	☐ Foam	√ None	☐ Othe	er:	
Comments: Pleas	e attach any add	ditional comr	nents to this	form.				
This information is a comprehensive under lecision on the recrea	standing of water	conditions. (Consequently,	this information i	is not intended	to directly	influenc	e a
Please verify that	you have comp	leted all sect	tions, check	ed all applicable	e boxes and t	hat every	thing is	s complete.
Surveyor's Signatu	re: <i>Unu</i>	Mark		Date of	f Survey:\$	1/18/0	7	
a a	SOLVILLER	5	Pos					
February 16	, 2007	Qu	C 5	ition: <u>ENV</u> :	Apres:	125%		

MEC Recreational Use Attainability Analysis Field Survey Sheet

							- 100.						naryo			-		Disso	Ived O	xvaen		
	Waterb	ody ID:	008	5		Site #:	008 3	> _ 8								Date:	A poly of	<u>8/07</u>		Time:	163	<u>:</u>
	(WBID_Site#) Estimated Channel Incision: (m) (height between low bank width and water) Dissolved Oxygen: (mg/L)																					
	GPS Lo	ocation ((taken a	t transe	ct 1):							,		•				oxygen:		- 00	(0/+)	
		UTM X: _. Horizor					44/4 ata Qua			45	(feet)										(% sat)	
				•	10)								9 m 1			Specific	Cond:	503.	<u> </u>	(µS/cm))
	Averag	e Strear	n Width	<u>]:</u>	10						irvey Se eam widt			Carlot (neters)	Wate	r Tempe	erature:	17	6	(°C)	-
	Field	d Staff:	R.M	autin	وره	JIE	oth															
			10 Sales					10 TH 10	6.7405.0	Trans	sect Cr	oss-Se	ection									
	0	1	Ó	2	_	3		4	_	5		6	0	7	0	8	-	9		0	1	1
easurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0,1	e 1	2.3	0.1	0,2	0,1	0,2	0,1	0,0	0.1	0,1	011	0,3	ا ہ	0,3	oil	0.5	0:1	0.0	0-1	012	0.1
2	0,8	Oil	3,2.	0.1	1,3	014	1,3	014	1.0	10.3	nn 81,0	012	1.3	0.5	1.15	0.2	0,9	012	(1)	0.6	1,4	0.6
3	1.5	0.1	3.6	0.1	2.4	0,4	2.4	0,3	2.0	0,3	1,9	0,3	2.3	0.5	2.0	0,3	1,3	0,2	2.2	0,6	26	1,0
4	2. 2	011	4.0	0.2	3.	013	35	0,4	3.0	0,3	2.8	0,3		0.5	2.85	0.3	1,7	0.2	3.3	0,6	3.8	>100
5	2.9	n i	4.4	0.2	4.6	0,4	4.6	0,4	4.0	0,4	3.7	0.3	4.3	0.3	3.7	0.3	2.1	0.2	4.4	0,5	5.0	71:0
6	3.6	20:1	4.93	0.2	5.7	0.4	5.7	0.4	5.0	0,4	4.6	0.4	5.3	0.3	月.65	0.3	2.5	0,2	5.5	0,6	6.2	>1:0
7	4.3	0.1	5.2	0.2	6.8	0,4	6.8	0,4	4.0	0.4	5.5	0,4	<i>U</i> .3	0.3	5.4	0,3	2.9	0.2	ها.یا	0,7	7.4	71.0
8	5.0	Oil	5.6	0.2	7.9	0,4	7.9	0,5	7.0	0.4	4	0.3	7.3	0.3	6.75	0,3	3.3	0.3	7.7	07	8.4	>100
9	5.7	0.1	6.0	0,2	9.0	0,4	9.0	0,4	8.0	013	7.3	013	8.3	0.2	7.1	0.2	3.7	0.2	8.8	0,6	9.8	71.0
10	64	601	6.4	0.2	101	0.3	10.1	0,3	9.0	0,3	8,2	0,3	9.3	0,1	7,95	0.1	4.1	0.2	9,9	6.4	11.0	10
11	7.1	0-1	6.8	0.1	11.2	0.1	11.2	0,2	10.0	0.2	9.1	0,2	14.3	01	8.8	0 - 1	4.5	0.1	11.0	0,2	122	Oil
12	97.9	0.0	7.0	010	12:1	0.0	11,5	0.0	10.1	0,0	9.1	0:2	1015	0.0	916	010	4,7	010	11,0	0,2	12.4	0.0
ature Type (riffle run, or pool	L	EPLG	Ri	IN	Poo) <u>ا</u>	Po	04	P	001-	Po	04	Po	00.1	Po	しし	Ru	N	Pe	000	Poe	oL

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed:	Pener Mark	Date: _	5/18/07
	Gwe	January day on E and	Agic

WBID#	0083
Site#	9

Data Sheet B - Site Characterization

Date & Time:	19/07 1700	Si	Site Location Description (e.g., road crossing):								
Personnel (Data Co	illectors): Q. MARTIN +	1 First V	~300 Mekrs from FIRST STREET, SETE # 8								
	onditions: CLEAR	F	Facility Name: NOVECTY WWTP								
Weather Conditions			Permit Number: MO 0102032								
	- 01-4	MWON									
Drought Conditions	s?: No drought □; Phase I □	l; Phase II □; Pha	se III □; Phase	IV □; Unknown □							
Locations:											
	IATES (UNIVERSAL TRANSVERS	··· ··· · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·							
	nates: UTM X: 05827 ECTION METHOD (Indicate the me	44	Y: 4	414314							
HORIZON FAL COLL	Global Positioning System (G		e the locational data	a.) Interpolat	ion						
Static Mode		Ĺ		Topographic Map or DRG							
Dynamic Mode (Kin				Aerial Photograph or DOQQ							
Precise Positioning	Service			Satellite Imagery							
Signal Averaging	ial Danasasia.	\longrightarrow	Interpola	Interpolation Other							
Real Time Different	IAI Processing CURACY ESTIMATE										
HURIZUNTAL ACC	GPS Data Quality			Interpolation Data Quality							
FOM	± Meters	· · · · · · · · · · · · · · · · · · ·	0	Source Map Scale: 1:24,000 1:100,000 Other							
EPE	± 19 Feet or ±	Meters	Source	•	an selection of the contract o						
PDOP	Nation-pales/1004/1011		±Feet or ±Meters								
	DWNSTRGAM SITEHS										
s Observed*:	(Uses actually observe	d at time of sur	vey.)								
☐ Swimming	☐ Skin diving	□ SCUBA	A diving	☐ Tubing	☐ Water skiing						
☐ Wind surfing	☐ Kayaking	☐ Boating	y	☐ Wading	Rafting						
☐ Hunting	☐ Trapping	☐ Fishing		None of the above	☐ Other:						
Use Interview whe	number of individuals recreat n conducting interviews.)										
	nditions*: (Mark all that pro	T		•							
☐ City/county par	rks	☐ MDC conserv	ation lands	☐ Urban areas	☐ Campgrounds						
☐ Boating access	es	☐ National fores	sts	☐ Nature trails	☐ Stairs/walkway						
☐ No trespass sign	n	Steep slopes		☐ None of the above	☐ Other:						
Comments:	···	V \(

WBID#	0087
Site#	a

Field Data Sheets for Recreational Use Stream Surveys

Roads	dications of Human Use*: (a		П						
	☐ Rope swings	☐ Foot paths/prints	Dock/platform	☐ Livestock V	Vatering	□ RV / ATV Tracks			
☐ Camping Site	S	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tac	kle	☐ Other:			
Comments:									
<u> </u>	NONE								
ream Morpho	logy:								
		anindiana Tadhaa	e any water present at	4: · · · · · · · · · · · · · · · · · · ·	7- 5	1 N T			
Opsiream vie	w ST nysicai Des	Niles of the Control				l No			
Soloot one of ti	he following cha		s there an obvious curr	ent? □ Y	'es □	No			
Channel Feature	Transect (#		n Width (m)	Length (m)	Median D	epth (m)	Max. Depth (m)		
RIFFLE		access (m)	10.00						
RUN									
POOL									
Downstroom V	/iow's Physical I) ocarintions: Is tl	nere any water present	at this size of	7 V	ET NI.			
Downstream v	riew s Filysical I	-			」Yes	□ No			
~ .			, is there an obvious cu	ırrent? □	l Yes	□ No			
Select one of the Channel Feature	he following char		dth (m) Length	() M-2:	D 4	, , T	M		
RIFFLE	Distance non	1 access (III) WI	dth (m) Length	(m) Media	ın Depth ((m)	Max. Depth (m)		
RUN									
POOL									
		add up to 100%.)							
25 % Co	obble 9	6 Gravel 75	% Sand	% Silt	% Mud/	Clay	% Bedro		
uatic Vegeta	tion*: (Note amo	unt of vegetation of	or algal growth at the a	ssessment site.))				
18 yee ov	1 Dushale	- fair amt							
		** *							
iter Characte	ristics*: (Mark a	Ill that apply.)							
oter Characte	ristics*: (Mark ع		Musky Chemical	None	☐ Othe	 er:			
	ristics*: (Mark a	□ Sewage □	Musky ☐ Chemical Green ☐ Gray	None Milky	☐ Othe				
ODOR:		☐ Sewage ☐	Green Gray	☐ Milky	□ Othe	r:			
ODOR: COLOR: BOTTOM DEPO		☐ Sewage ☐ ☐ Clear ☐ ☐ Sludge ☐	Green Gray Solids Fine sedime	☐ Milky ents ☐ None	□ Othe	er:			
ODOR: COLOR: BOTTOM DEPO	OSIT:	☐ Sewage ☐ ☐ Clear ☐ ☐ Sludge ☐	Green Gray	☐ Milky	□ Othe	er:			
ODOR: COLOR: BOTTOM DEPO	OSIT: ACE DEPOSITION:	☐ Sewage ☐ ☐ Clear ☐ ☐ Sludge ☐	Green Gray Solids Fine sedime	☐ Milky ents ☐ None	□ Othe	er:			
ODOR: COLOR: BOTTOM DEPC WATER SURFA mments: Plea	OSIT: ACE DEPOSITION: ase attach any add	Sewage Clear Clear Close Close Clear Close Clear	Green Gray Solids Fine sedime Scum Foam to this form.	☐ Milky ents ☐ None None	☐ Othe	er:			
ODOR: COLOR: BOTTOM DEPC WATER SURFA mments: Plea	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole	Sewage Clear Clear Close Clip Oil Clear Cl	Green Gray Solids Fine sedime Scum Foam to this form. recreational use designat	☐ Milky ents ☐ None None None	Othe	er: er: er:	; ;		
ODOR: COLOR: BOTTOM DEPC WATER SURFA mments: Plea his information is reprehensive under	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Conseq	Green Gray Solids Fine sedime Scum Foam to this form.	☐ Milky ents ☐ None None ion but rather is to is not intended to	Othe	er: er: er a more	e a		
ODOR: COLOR: BOTTOM DEPO WATER SURFA mments: Plea his information is hiprehensive under ision on the recre	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water eation use analysis l	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Consequent to comment to comm	Green Gray Solids Fine sediments Scum Foam to this form. recreational use designate uently, this information inditions that need further	Milky ents None None ion but rather is to analysis or that a	Othe	er: er: er: e a more influence other use	e a e.		
ODOR: COLOR: BOTTOM DEPO WATER SURFA mments: Plea his information is hiprehensive under ision on the recre	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water eation use analysis l	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Consequent to comment to comm	Green Gray Solids Fine sediments Scum Foam to this form. recreational use designate uently, this information inditions that need further	Milky ents None None ion but rather is to analysis or that a	Othe	er: er: er: e a more influence other use	e a e.		
ODOR: COLOR: BOTTOM DEPO WATER SURFA mments: Plea his information is hiprehensive under ision on the recre	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water eation use analysis l	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Consequent to comment to comm	Green Gray Solids Fine sediments Scum Foam to this form. recreational use designate uently, this information inditions that need further	Milky ents None None ion but rather is to analysis or that a	Othe	er: er: er: e a more influence other use	e a e.		
ODOR: COLOR: BOTTOM DEPO WATER SURFA mments: Plea his information is hiprehensive under ision on the recre	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water eation use analysis l	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Consequent to comment to comm	Green Gray Solids Fine sediments Scum Foam to this form. recreational use designate uently, this information inditions that need further	Milky ents None None ion but rather is to analysis or that a	Othe	er: er: er: e a more influence other use	e a e.		
ODOR: COLOR: BOTTOM DEPO WATER SURFA mments: Plea his information is hiprehensive under ision on the recre	OSIT: ACE DEPOSITION: ase attach any add s not to be used sole erstanding of water eation use analysis l	Sewage Clear Sludge Oil itional comments ely for removal of a reconditions. Consequent to comment to comm	Green Gray Solids Fine sedime Scum Foam To this form. recreational use designate uently, this information inditions that need further	Milky ents None None ion but rather is to analysis or that a	Othe	er: er: er: e a more influence other use	e a e.		

MEC Recreational Use Attainability Analysis Field Survey Sheet

												Dissolved Oxygen										
	Waterb	Waterbody ID: 0083 Site #: 0083 - 9 (WBID_Site#)											Date:	5/18	107		Time:	1700	>			
	(WBID_Site#) Estimated Channel Incision: (m) (height between low bank width and water) GPS Location (taken at transect 1):											Dissolved Oxygen: 7,30 (mg/L)										
	UTM X: 058273344 UTM Y: 44/4295 3/4 19 Horizontal Accuracy Estimate (GPS Data Quality): +/- 62 pm (feet)											Dissolved Oxygen: 77,9 (% sat)										
													Specific Cond: 320 (µS/cm)						1)			
	Average Stream Width: 2 (meters) Length of Survey Segment: 240 (meters) (20x average stream width) Field Staff: RENEE MARTIN & JUSTYN FOTH										Water Temperature: <u>18, 2</u> (°C)											
	Transect Cross-Section																- 41	10.11				
	01		02		03		04		05		06		07		08		09		10		11	
Measurement	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0:1	Bil	0,2	0.1	0.1	0.1	0 , /	011	0,1	0.1	0,2	0.1	0.0	0,2	0,0	0.1	Bil	0.1	0.0	0.1	0,1	0,1
2	60	0.3	1,0	0.3	1,2	013	0.65	012	1.1	0.6	1,3	0.6				013	1.5	0,6	1.5	0,5	1.6	0,5
3	119	0.4	1.8	0,4	2.3	0.3	1.2	0,3	2.1	0.6	2.4	0.6	2-6	0.6	2-6	0.3	2.9	0,7	3.0	0.6	3.1	0,5
4	2.8	0,4	2.6	0.5	3.4	0,2	1.75	0.3	3.1	0.6	3.5	0.7	3.9	0.5	3.9	0,3	4,3	0,6	4.5	0,7	4.6	0.4
5	3.7	013	3.4	0.5	4.5	0.3	2.3	0,3	4.1	0.5	4,4	0.7	5.2	0,5	5.2	0.4	5.7	015	6.0	0.7	1	0.5
6	4.6	0,3	4.2	0,5	5.6		2.85	0.2	5.1	0.5	5.1	0.7	1 1	1	4.5	0.4	7.1	0,5	7.5	0.6	7.6	04
7	5,5	0,2	5.0	0,5	6.7	0,2	3.4	0.2	4.1	0.6	4.8	0.6	7.8	0.5	7.8	0,4	8,5	0,7	9.0	0,5		0,3
8	4.4	0.2	5.8	0.4	7.8	0.2	3,95	0:2	7-1	0.5	7.9	0.6	9.1	0.4	9,1	0.4	9.9	01/8 R	10.5	0,5	10.6	0,3
9	7.3	0.1	4.6	0.4	8.9	Oil	4.5	0.2	9,1	0.4	9.6	0:5	10,4	0.4	10.4	013	11.3	0:5	12.0	0,4	-12.1	0,3
	8.2	0.1	7.4	0.2	10,6	0.1	5.05	0.(9.1	0,3	ID,]	0.5	11,7	0.3		0.3	12.7	0.4	13.5	0.4	13.6	0,1
11	9.1	0.1	8.2	011	1.1	0.1	5.6	0.1	10.1	0:1	11,2	0.1	13.0	0.1	13.0	of	性.1	0.1	15.0	oil	15.1	0.1
. —	9,2	0,0	-9		11,3	0,0	7.8	0.0	11.5	0.0	11.4	0,0	13.1	0,0	1316	0,0	14,5	0,0	15.2	0,0	15.8	0,0
Feature Type (riffle, run, or pool)	Ru	RUN POOL/RUN RUN		0.	RUN POOL		Pool Pool		Po	DOC POOL		in C	POOL		POOL							

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.



Site# 1 Photo ID# 0083-1-164



Site# 2 Photo ID# 0083-2-168



Site# 1 Photo ID# 0083-1-165



Site# 2 Photo ID# 0083-2-169



Site# 3 Photo ID# 0083-3-170



Site# 3 Photo ID# 0083-trackssite3-172



Site# 3 Photo ID# 0083-3-171



Site# 4 Photo ID# 0083-4-173



Site# 4 Photo ID# 0083-4-174



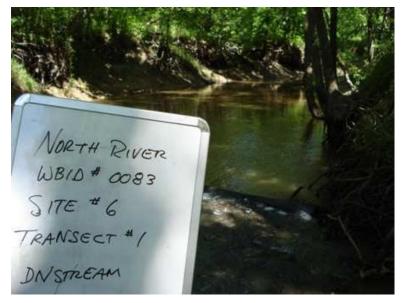
Site# 5 Photo ID# 0083-5-176



Site# 5 Photo ID# 0083-5-175



Site# 6 Photo ID# 0083-6-177



Site# 6 Photo ID# 0083-6-178



Site# 7 Photo ID# 0083-7-180



Site# 7 Photo ID# 0083-7-179



Site# 8 Photo ID# 0083-8-181



Site# 8 Photo ID# 0083-8-182



Site# 9 Photo ID# 0083-9-184



Site# 9 Photo ID# 0083-9-183